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ABSTRACT

In an attempt to clarify the indexing and announcing controls for government documents, this issue of the Drexel Library Quarterly presents background information on several of the information controlling and access agencies, describes their operations, and points out their inherent problems and weaknesses. The agencies covered are the Government Printing Office, printer, publisher, and sales agent; the Defense Documentation Center, a source of documents and a provider of direct service to defense contractors and indirect service to the public; the National Technical Information Service, the announcer and sales agent serving business and technological users; the National Archives; and the Educational Resources Information Center. The roles and the effectiveness of the "Monthly Catalog of U.S. Government Publications," the federal depository library system, and the overall federal system of bibliographic control are analyzed. (Author/SL)

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Policies and Practices in the Bibliographic Control of United States Government Publications

Clifford P. Crowers
Issue Editor

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Introduction

In the past several years there has been a remarkable increase in new indexing approaches to government publications. These have come about in part through application of computer technology, developments in micro-publishing, increased library markets, and since 1962, the large number of newly created Federal depository libraries, with all their attendant needs. These new indexing approaches have been commercial ventures: the *CIS/Index* to congressional publications, the *American Statistics Index* (both products of the Congressional Information Service); the *Cumulative Subject Index to the Monthly Catalog of United States Government Publications, 1900-1970* (United States Historical Documents Institute); *Disclosures, Inc.*, which indexes, abstracts, and announces the reports submitted to the Securities and Exchange Commission; *Transdex* (CCM Information Corporation) for translations of the U.S. Joint Publications Research Service. There are others.

These indexes have come about also as a result of the sheer frustration of information users in finding adequate bibliographic approaches to government publications and data. By "bibliographic" I mean not only identifying what the thing is but how to get it into one's hands. The Freedom of Information Act is fine paper theory. Because of it, one can find in the *Code of Federal Regulations* where to apply for information by agency, but one must *identify* the publication or data and that's the rub. Identify it, How? In what? Frustration again!

The government agencies permitted (the National Technical Information Service), or assigned (the Government Printing Office) an information gathering and announcing function are themselves frustrated. The National Technical Information Service programs must be self-sustaining; its costs for its

services are, therefore, high. As an economy measure it must consider discontinuance of its annual index; it cannot afford the cost of supplying its cumulative retrospective index to Federal depository libraries. While the law states that the Government Printing Office is to receive one copy of every government publication produced, excepting purely administrative ones, the GPO cannot compel agencies to comply. If a title is selected for shipment to Federal depository libraries, the agency must bear the printing costs; this makes the agency reluctant, especially if a short printing run is anticipated (a short run having higher costs than a long one). To complete the frustrating cycle, if agencies did comply fully with the law, the overall costs would be enormous.

If funds were provided to index every government publication (within reason, of course—surely we do not need *all* of them) just what vehicle would provide the bibliographic control? We have the Government Printing Office's *Monthly Catalog of United States Government Publications and* the National Technical Information Service's *Government Reports Announcements* as our most general, all-inclusive announcing controls. Neither is complete even in an area in which one expects it to be; each overlaps the other in coverage in many instances. Sometimes this overlap results because the publication is printed at the Government Printing Office and is consequently listed in its *Monthly Catalog*; sometimes an agency wishes its material listed in the *Catalog;* sometimes a particular number in a series is distributed by the National Technical Information Service, but the *Monthly Catalog* lists it also to maintain its bibliographic control of the series. Increasingly, *Government Reports Announcements* has taken to listing publications sold only by the Government Printing Office. At times the hard copy is listed only in the *Monthly Catalog, Government Reports Announcements* listing the microfiche edition of that same title. Confusing? Very. Yet in my view, it is unthinkable to consider combining these two titles. Such a merger has been proposed. But we do definitely need some clarification of the indexing roles of these two agencies.

A plea for clarification in the indexing and announcing controls for government publications is actually what this issue of the *Drexel Library Quarterly* is all about. This issue does not propose any overall solutions, though it might dream a bit here

and there. Answers will only come when the problems are thoroughly examined. This issue hopes to make a contribution to that end by presenting background on several of the information controlling agencies, by describing their operations, and pointing out the inherent problems and weaknesses. Briefly, the agencies covered are the Government Printing Office, printer, publisher, sales agent; the Defense Documentation Center, a great in-putter of information, provider of direct services to defense contractors, indirect service to the general public; the National Technical Information Service, announcer and sales agent to business and technological users; the National Archives; and the Educational Resources Information Center. The Educational Resources Information Center acquisitions commercial as well as government publications in its field, a somewhat different approach as this issue will show.

This issue of the *Quarterly* does not contain information on the National Agricultural Library, the National Library of Medicine, the Library of Congress, certain large collections of documents at the Smithsonian Institution, or reference to other data files such as those of the Bureau of the Census. The abstracting and announcing services of the Atomic Energy Commission and the National Aeronautics and Space Administration are only referred to in relation to the National Technical Information Service in several of the papers.

Another source of information availability is the Federal depository system. There are other government depository arrangements, such as that of the Atomic Energy Commission, but the Federal depository system, operated by the Government Printing Office and in existence since 1857, has a general function and is solidly based on law of Congress. Not every depository publication will be found in even the largest of Federal depository libraries. There is no core of titles which must be accepted, but no large library would be without important titles such as the *Federal Register* which is in itself an announcing and text-providing source for the executive branch of the government. We talk much nowadays of *networks*; the Federal depository system is an existing network, albeit with quirks and unevenness of locations and collections. The system is there, however, important in itself, and it is easier to build on an existing system than to create anew. There is an article, therefore, on the depository system.

Other articles discuss the *Monthly Catalog* and its role as an indexing, abstracting means. There are two articles in fact, one primarily on the *Catalog* and the other on its relationship to *Nuclear Science Abstracts, Scientific and Technical Aerospace Reports*, and *Government Reports Announcements*, primarily from the view point of the sci-tech user.

After a year-long study the American Library Association's Ad Hoc Committee on the Depository Library System submitted its report in January 1974. The report is now under study by ALA Council. One of the Ad Hoc Committee's recommendations is that a National Depository Library be established to hold all publications produced at government expense, including classified items. The proposal for a National Depository Library may or may not have merit; it will need study. Perhaps the National Archives already has that function. The library of the Government Printing Office, the largest collection of government publications in the country, exclusive of research reports, was moved from Government Printing Office custody to that of the National Archives in mid-1972. In the future, the materials indexed by the Government Printing Office during a year will thereafter move regularly into the National Archives collections. For lack of staff, the Government Printing Office was never able to make the collection available to researchers. When processing by the National Archives is completed, this enormous body of material will be available for the first time *as a collection.* (Much of it has of course always been available in libraries.)

It is interesting that the National Archives felt the acceptance of this collection to be within its mandate. The Ad Hoc Committee's recommendation is important in that it is an expression of our need to have certain knowledge of where all government publications may be got at. If unclassified, in whose collection does the official copy, *the* copy—whatever you want to call it—reside? If that particular publication has been indexed and we have bibliographic knowledge of it, we might know where it should be found (but you will see in Mr. Rea's article that a group of materials was transferred from the Defense Documentation Center to the Air and Space Museum at the Smithsonian). But it is the whereabouts of those publications completely unknown to us, or not known to us bibliographically, which bugs us. Complete national

control is what we really want. All publications in one place? Not necessarily! But knowledge of where they are? Yes!

In my statement above about the Ad Hoc Committee's proposal, I did not italicize the words "including classified items." This is a rather startling suggestion; it may not be desirable or possible but the proposal's importance to me is in its reflection of our concern that once declassified, there is a known resting place for a particular publication. We do not now have that certain knowledge, nor any assurance that its declassification is even announced in some government source all information users have access to.

Executive Order No. 11652, March 8, 1972, *Classification and Declassification of National Security Information and Material,* in general assigns custody of declassified material to the Archivist of the United States but it is not at all clear how this procedure works so far as all government agencies are concerned. Nor does the National Archives have an announcing and abstracting service for its accessions.

This issue then presents information on the workings of several programs with some analysis of their effectiveness. It is hoped that this information will be useful in itself. In a larger sense, I hope this issue can help us to see where we are. We know where we want to go. How to get where we want to go is one of our problems.

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The U.S. Government Printing Office Today

Wellington H. Lewis

The Public Printer, Thomas F. McCormick, heads the Government Printing Office. Last year he changed the title of one of his assistants from the familiar Superintendent of Documents to Assistant Public Printer. I'll keep the more familiar title in speaking of that position.

The Superintendent of Documents heads the Public Documents Department which is responsible for sale of publications to the public, preparation of catalogs of publications, and operation of the Federal depository program. In an article such as this (on the Government Printing Office) it is the functions of the Public Documents Department which most concern us. We tend to forget at times the enormous job in printing, and the procurement of printing, done by the Government Printing Office. Mr. Lewis's article does give us some background on the volume of work handled and under what conditions.

Mr. Lewis writes of some recent changes in the sales program which most of us are now aware of: the dramatic increase in prices (about fifty percent), change to one-year subscriptions, discontinuance of direct mailing of dealers' orders to a third party, and others. Prices in publications may not be the price one is billed. The familiar series of *Price Lists* has been discontinued; this is to be regretted since the *Price Lists* showed not only what was in stock but had useful annotations.

However regrettable these changes may be, the law presently requires the Government Printing Office to recover its costs. We must look to the Congress to subsidize these costs if they are to come down; that is, subsidize either the Government Printing Office's costs in printing or provide postal relief.

We will look with great interest to the development of the micro-publishing plans Mr. Lewis mentions. The Joint Committee on Printing in its memorandum of May 3, 1972 authorized the Public Printer to establish the capability of distributing and selling publications in microform. Microform is now included in the definition of "printing" in its *Government Printing and Binding Regulations*, no. 22, December 1972 (Washington, GPO, 1962).

Wellington H. Lewis is the Assistant Public Printer (Superintendent of Documents).

United States Government Printing Office

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The survey of Federal depository libraries Mr. Lewis mentions is underway. He reported a 17.5 percent response as of March 19, 1974. (This was reported at the Information Industry Association's workshop in Washington on that date.) A pilot project of distribution of selected items to depository libraries will begin about June 1, 1974 with a final decision on distribution expected about January 1. The microfiche will be 98 frame, 24X in format (a reduction of 24).

Separate author, title, and subject indexes for the *Monthly Catalog* have now appeared in the January 1974 issue as a result of the computerization of the *Catalog*. The author index consists of personal names, corporate names appearing with entry numbers for series titles only in the subject index. The introduction to Mr. Schwarzkopf's article contains some recommendations concerning the *Monthly Catalog* submitted to the Advisory Council to the Public Printer for Depository Libraries.

The Government Printing Office has long sought within the limit of its resources to cooperate with the library and information community. In the past it has not always been aggressive in seeking greater financial help for its programs. Nevertheless it is hampered in some of its efforts by lack of cooperation from government agencies in supplying, for listing in the *Monthly Catalog*, copies of publications not printed by the Government Printing Office. Under the provisions of 44 *U.S.C.* 1710, government agencies are required to furnish the Superintendent of Documents one copy of each publication issued by them. This section has been further amplified by the Joint Committee on Printing in its resolution of July 15, 1937 to include material produced within agencies by means other than printing, excluding that which is purely administrative or confidential. The Public Printer sends letters at intervals to all printing and publishing officials of the government urging compliance but he cannot compel compliance. We have this same problem, of course, at every level of government.

The Government Printing Office has established an Advisory Council to the Public Printer for Depository Libraries, which first met on February 2, 1973. The Council replaces an earlier constituted body which never conducted formal meetings. A list of members is given in Ms. Hoduski's article. (See page 114.) It is hoped that this Council can be an effective liaison between users and the Government Printing Office.

C. C.—Editor

The U.S. Government Printing Office serves as the primary producer and supplier of the vast array of documents which result from the activities and research conducted by the Federal Government. Fulfillment of many of the printing and distribution requirements of the Executive departments and agencies is a principal task, but service to the Congress has always been the GPO's foremost responsibility. The GPO today faces many new challenges in view of the increasing

demand for information and the importance of Government programs in our everyday lives.

Printing in the United States Government is a unique support service—unique because the printing itself, and the equipment used, are controlled by a special public law. Since 1777, when the Second Continental Congress was evacuated from Philadelphia, there has been the need for laws and regulations to bring order to the many things printed by and for the Government. The GPO was established in 1861. The Act of January 12, 1895 consolidated the laws relating to public printing into Title 44, U.S. Code, "Public Printing and Documents." Also, a permanent Congressional Joint Committee on Printing (JCP) was established and the position of Public Printer of the United States was created as head of the GPO.

The Joint Committee on Printing, in effect, is the Board of Directors for the GPO. The Committee consists of the Chairman and two members of the Committee on Rules and Administration of the Senate and the Chairman and two members of the Committee on House Administration of the House of Representatives. Under Title 44 of the U.S. Code, the Joint Committee on Printing may, "use any measures it considers necessary to remedy neglect, delay, duplication, or waste in the public printing and binding and the distribution of Government Publications." (44 U.S.C. 103)

Besides the actual printing responsibilities, in 1972, the Joint Committee on Printing placed micropublishing activities within its realm when it ruled that microforms are publications and, as such, must be produced in accordance with Title 44.

To provide the services required of the GPO, an immense physical plant, as well as a continuing program of technological advancement in the art and science of printing is necessary. Located four blocks from the Capitol, the GPO has four buildings ranging in age from 35 to 70 years. The three main buildings have eight floors.

Operating under frequently crushing Congressional schedules, hot metal type-setting techniques are still in use. Perhaps the basic reason for retaining hot metal in the GPO can be traced to the perpetuation of conventional copy-preparation methods

in the Congress. But some cracks are appearing in the monolithic facade. Under the aegis of Congressman Wayne L. Hays and his Committee on House Administration, GPO is now setting House Committee business calendars from magnetic tape generated on the House computers. This material is being produced on two Linotron 1010's, which are among the most advanced high-speed photocomposers in the industry. The tapes are produced as byproducts of the Committee's information retrieval system. The hard core of Congressional copy generation, however, is still via stenotype, typewriter, and keyboard.

In addition to the many documents and publications issued by Government agencies, most of the necessary forms, manuals, and miscellaneous publications used by the Federal Government in the conduct of its business are also produced through the GPO.

Although the Central Office plant in Washington is one of the largest printing plants in the world, the GPO has very little specialty equipment which would put it in competition with private industry. There are no process color cameras or related types of equipment, and the Office has only five two-color offset presses. The GPO does not have the equipment to produce such specialty items as snapouts, tab paper, tab cards, decals, and other products requiring specialty equipment. The Office is basically a single-color book and job shop, geared for producing the printing requirements of Congress.

One of the most important tasks is the printing of the proceedings and debates of the U.S. Congress, better known as the *Congressional Record.* Fifty thousand copies of this publication are produced each day the Senate and the House of Representatives are in session. Its size can vary from 16 pages to over 300 pages. Its bulk depends, of course, on the amount of business conducted by our legislators on a particular day—and on how much material is inserted with their remarks. The average *Record* is about the size of a 38-page daily newspaper. Copy starts coming into the Office about 6:30 p.m. and the last copy arrives somewhere around midnight, despite a 9:00 p.m. deadline. Regardless of whether the *Record* is 16 or 300 pages, it must be set in type, printed and delivered to the Congressional Post Office at the Capitol before 6:30 a.m. the next morning.

The Public Printer is also charged with making Government publications available to the public. To accomplish both its printing and distribution functions, the GPO has 8,500 employees. Most are in the main GPO complex, but the Office also has field printing plants, printing procurement offices, bookstores, and two documents distribution centers. In the main plant there are 141 presses and 379 typesetting machines spread over 32 acres of floor space.

Publishing and Printing Functions

The GPO does more than $300 million worth of printing business each year. Approximately 60 percent of this is procured from commercial firms. Over 1,100 orders for printing are received per day, 22 carloads of paper are used each day, and well over one million publications are printed a year.

As the Federal Government grew more complex, it reached out to the states to serve the people better through field installations. A 1967-68 study of Government printing, under the direction of the JCP, indicated a need for decentralization of printing services, as well as a need for more extensive use of the commercial printing industry. Therefore, the JCP directed a new policy requiring printing to be done near the point of origin or where the product is to be distributed, with stress being placed on procuring these requirements from the commercial industry. Fourteen regional printing procurement offices are now operated by the GPO and the majority of agency printing is procured from the private sector through these field offices and the Central Office. GPO procurement of almost every type of printing imaginable is based on the competitive bid system, and follows closely the Federal Procurement Regulations under which all Government agencies operate.

The GPO has always supported and encouraged innovations in the printing industry. Progress in printing production and computerized typesetting can do a great deal to improve the flow of Government information. There has been a trend over many years away from the letterpress process of printing directly from type and plates toward the lithographic process of printing from offset plates. Offset plate materials have vastly improved over the years with the capability of longer press runs which help reduce costs. Automatic

processing equipment has become available to process these plates with reduced labor costs. Even in the letterpress field, new materials are being used to make plates today by the photographic process, which may help rejuvenate the letterpress process. There is a tendency to convert more and more work from sheet-fed presses to web-fed presses with automatic folders that run at more than five times the speed of the sheet-fed presses. The bookbinding operations are improving with the availability of higher-speed equipment and the concept of in-line production to decrease the amount of manual handling between various steps in production. Improved adhesives have become available which have made possible the manufacture of a serviceable bound book at lower cost.

Probably the most dramatic development in the printing industry is the use of computers and automated typesetting machines in the composing room. The fantastic growth in the number of computers in the Federal Government—from 531 in 1960 to more than 4,000 in 1970—has forced a change in the technology of reproducing printed copies of data generated and stored by computers. The GPO is a leader in this new technology of computerized composition.

In 1962, at the direction of the JCP, the GPO began a program to reduce the cost and improve the quality of printed material emanating from Government computers. A Federal Electronic Printing Committee, now significantly retitled the Federal Electronic Printing and Micropublishing Committee, was formed to provide technical guidance to the JCP on matters pertaining to electronic composition. A study undertaken by the GPO in 1962 proved the feasibility of using computers in typesetting to drive automated phototypesetting equipment, and culminated in the award of a contract to the Merganthaler Linotype Company/CBS Laboratories, to develop and deliver the first high-speed cathode ray tube phototypesetting machines. The contract was signed in March 1964, and the first of two systems was placed in operation in October 1967, and has been in daily production since that time. A second system has been in operation since January 1969. These machines accept magnetic tapes from an agency computer and convert the data on the tape to images on a cathode ray television tube. A photosensitive film records the light images on the face of the tube, and the end product of the machine is a complete page, ready for offset platemaking.

At the present time, 100 different publications are produced on the Linotron 1010, as it is called, using more than 275 different typographic formats. The great majority of these publications were formerly produced by photographing a computer printer listing. The quality was poor and the number of pages needed to present the information was large. With the electronic composing system, the number of printed pages in the average publication has been reduced by approximately 40 percent less than would have been needed for a computer listing. The reduction in the number of printed pages means fewer negatives, fewer plates, less presswork, less paper, and lower costs to print and distribute the publication. Last fiscal year, over 700,000 pages were composed on the two Linotron systems.

Public Documents Department

Printing operations are critical at the GPO. However, equally important are the sale and distribution of publications once produced. To accomplish these tasks, the Public Documents Department was established as an integral part of the GPO. The Department, however, receives its own regular appropriation, and also operates in part from the proceeds received from the sale of publications. When a Government agency prints a book through the GPO, the Documents Department places a rider on its requisition, ordering a specific number of sales copies. Printing costs for these sales copies are covered by a revolving fund, and sales revenue is returned to the fund. In this regard, it is the intent of Congress that the publications sales program be self-sustaining.

The Assistant Public Printer (Superintendent of Documents), heads the Public Documents Department and is responsible for four major programs: distribution of publications for Members of Congress and for agencies and departments of the Federal Government; the servicing of Federal depository libraries throughout the United States; issuance of catalogs and indexes; and the sale of Government publications.

Distribution and Sales

A major portion of the work force of the Public Documents Department is involved with the sale of Government publications. Sales activities include procurement of sales publications,

marketing activities, inventory and warehousing, receipt of orders and remittances, and order-filling. Over 25,000 agency titles selected for their interest and educational value are available through the Documents Department.

In fiscal year 1973, 78 million copies were sold with a total sales value of $23 million. The workload seems to be an ever-increasing one; on an average day 19,000 orders plus some 2,000 phone inquiries are received. Besides a Central Office area for forward stock, three warehouses in the Washington, D.C. metropolitan area are used to store the inventory.

The Public Documents Department also operates a nationwide chain of GPO bookstores; six in the Washington D.C. area and 17 located in other cities. Two distribution centers, one operated entirely by Documents Department employees in Pueblo, Colorado, and another in Philadelphia, Pennsylvania, working in conjunction with the Naval Publications and Forms Center, have been established to process orders from the Department's announcement periodical, *Selected U.S. Government Publications*. *Selected U.S. Government Publications* is issued monthly and lists approximately 200 new and popular titles available for sale. It can be received free, upon request, and is currently mailed to 1.5 million addressees.

In terms of workload and number of employees, the distribution function is the Public Documents Department's second largest activity. Congress is the primary customer for the distribution of Government publications. In fiscal year 1973, over 95 million items were distributed for Members of Congress. The vast majority of this business is distributed through the U.S. Postal System and involves several large-scale operations, including the maintenance of mailing lists, storage of required stock, and the operation of inserting and mailing machines.

Depository Library Program

The administration of the Depository Library Program is required of the Documents Department under Title 44. "Government publications, except those determined by their issuing components to be required for official use only or for strictly administrative or operational purposes which have no public interest or educational value and publications classified for reasons of national security, shall be made available to the

depository libraries through the facilities of the Superintendent of Documents for public information." (44 *U.S.C.* 1902)

A Library Section within the Public Documents Department administers the Depository Library Program and prepares the *Monthly Catalog of U.S. Government Publications*, the *Numerical Lists and Schedule of Volumes of Reports and Documents of Congress*, and the assemblying of the Congressional serial set, the bound books containing the *Senate Reports*, *House Reports*, *Senate Documents*, and *House Documents*.

Service to the Federal Depository Library System includes the distribution of an average of 12 million publications annually to over 1,100 libraries designated as Federal depositories. These libraries are required by law to make Government publications available for the free use of the general public. (44 U.S.C. 1911) A recent survey of depository libraries indicates an increasing demand by all factions of the public for Government documents and information through the depository program. A staff of librarians and clerical workers maintains a listing of 3,000 categories of publications available to the depository libraries.

Catalogs & Indexes

Production of catalogs and indexes listing Government publications is also a part of the Department's library function. Between 1500 and 1800 Federal Government publications are classified and cataloged monthly during the course of preparation of the *Monthly Catalog of U.S. Government Publications*. Now being tested is a new automated system for preparation of the *Monthly Catalog*, which is expected to be in operation in early 1974. The system employs a computer program called ATS—Administrative Terminal System. ATS supports remote data entry terminals, which are simply communicating electric typewriters, and, in addition, a relatively simple control language which allows the user, at a remote communications terminal, to control the flow of information to and from the computer memory. Besides saving time by handling the tremendous amount of clerical work involved, the system will provide for three indexes (subject, author, title) in each *Monthly Catalog* rather than a single merged index. This improvement should produce a more useful *Monthly Catalog* for the library community.

Problems in Improving Distribution and Service

Several major programs are presently being conducted by the Public Documents Department in an effort to improve service to customers and users of Government documents through refinements in sales and distribution operations. New warehouses have been established in recent years to help reduce storage problems. Modern technology is being employed wherever possible to speed up order processing, references, and mailing operations. A task force, comprised of GPO personnel and advisors from the National Archives and Records Service, is presently reviewing methods of operation to develop a plan for a totally automated receipt control and order processing system.

At this time, almost all Public Documents Department resources are being devoted to improving service and to operating the sales program in the most cost effective manner.

Historically, the publication sales program of the GPO has been self-sustaining. Title 44 states, "The price at which additional copies of Government publications are offered for sale to the public by the Superintendent of Documents shall be based on the cost as determined by the Public Printer plus 50 percent." (44 *U.S.C.* 1708) The cost of this program, including labor, materials, and overhead incurred in printing, warehousing, and distribution, is to be borne by the users of the publications rather than being subsidized by appropriations from the General Funds of the Treasury. A pricing formula was devised to take these factors into account in establishing the sales price of Government publications and, with rather modest and routine adjustments from time to time, worked well over the years in accomplishing Congressional objectives. Recent increases in labor and material costs, however, have upset this balance. The last routine adjustment in prices was made in 1968. Since that time, paper supplies have become much tighter and consequently more expensive. In recent years, GPO's paper costs have risen an astonishing 98 percent. Add this to a postage increase of over 400 percent (since the Postal Reorganization Act of 1971 when the Postal Service became a business and began charging all Federal agencies full postage) and a labor increase of 54 percent, and the need for price increases is evident.

Based on recent policy guidelines, six major changes relating

to the sale of government publications by the Superintendent of Documents may be seen:

1 Prices on individual books and pamphlets are going to increase, in most cases about 50 percent.

2 Prices of dated periodicals and subscription services are going to rise even more dramatically than those of individual publications. Subscriptions will reflect the biggest price increases, because they are mailed to readers regularly and, are therefore most affected by postage rates.

3 Except for the "Table of Redemption Values," all subscriptions will be sold on a one-year basis only. This is because of the aforementioned price reviews.

4 No discount will be allowed when a mailing is to be to a third party except in the case of quantity orders. In this regard, purchasers of 100 copies or more of the same publication shipped to one point will receive a 25 percent discount as in the past.

5 Back copies of a subscription will no longer be mailed as part of a customer's subscription order, just as with *Time* or *Newsweek*. The customer will receive the next issue. However, single copies of any issue will still be sold.

6 Prices printed in publications may differ from what you actually paid for them. That's because when a book is reprinted, the price usually changes, but since it is only a reprint and not a revision, copies with the old price line are distributed until they are exhausted, rather than destroy them or attempt to correct the prices manually.

The changes reflect an attempt by the GPO, after substantial losses for the past two years largely due to postage increases, to put the sales program back on a self-sustaining basis as is the intent of Congress.

Micropublishing

Another area of interest which primarily involves the Public Documents Department is that of GPO micropublishing. Broad guidelines for the program have been determined and, in

perhaps the greatest step forward to date for the fledgling field of micropublishing, the GPO and five other prominent organizations in the field have settled on specific standards for the production of microfiche from source documents. In the near future, Federal depository libraries will be surveyed to determine if there is sufficient interest to warrant distribution of specific categories of publications in microform, rather than in printed copy. If sufficient interest/utility is indicated and with JCP approval, a small sample of publications will be produced in microform by commercial contract and distributed. After this pilot procedure, and if it proves satisfactory, the program could be expanded to include other categories of publications to depository libraries. Ultimately, this may mean that either microfiche or hard copy can be furnished for depository collections. However, only one format is supplied free; it would be necessary to purchase the other if wanted.

Meeting the continuing demand for Government publications and fulfilling the Federal printing requirements are not the only challenges facing the GPO.

The GPO, as well as the entire printing and publishing industry, is right now facing a very real paper shortage. Naturally, the concern is rooted in the ability of this Office to meet its commitments in furtherance of national programs. Until several years ago, the paper industry was systematically expanding. But today mills are operating at near-maximum capacity. Experts have declared that the demand for paper will outrun the supply for many months and perhaps years. The GPO publication announcement periodical, *Selected U.S. Government Publications*, which is printed by a commercial firm, has been delayed and has recently been printed on newsprint, because 100-pound offset paper has not been available. It may soon be printed on recycled paper. There is a growing list of documents affected by the shortage.

From the Government's aspect, this shortage is a serious one, because often the programs which documents are intended to activate or maintain are slowed as well. Also, the documents are frequently regulatory or informational in nature with impact on the public interests of every American.

Procurement standards for paper are becoming more flexible and Federal departments and agencies are accepting wide departures from long established formats because of the paper procurement situation. Publications and periodicals are also being regularly reviewed for necessity.

In fiscal year 1973 the GPO bought from commercial printers or itself produced over $300 million worth of printing. This figure includes about 136 million pounds of paper used in its own plants. In the past 15 months paper costs have risen on the order of 60 percent. The paper supply situation is being monitored carefully and the Public Printer has appealed to the paper industry for assurances that the Government's paper requirements will be met. In the past, the industry has acted voluntarily and the Government's programs have been carried forward. No public program has yet suffered irreparably from the lack of paper for printing. However, paper needs are pressing and no short-range solution appears in sight.

Overcoming the paper shortage, micropublishing, computerization in typesetting, and streamlined order processing systems are major factors in the future of the GPO. The Office looks forward to the continued cooperation of the library community and especially to the assistance of the Advisory Council to the Public Printer for Depository Libraries, in working together to serve the needs of the American public for Government documents. (See Introduction to issue by C. Crowers, p. 1.)

Defense Documentation Center

Robert H. Rea

The Defense Documentation Center is a vast depository for research literature produced by Department of Defense agencies and their contractors. It is important to note that the Defense Documentation Center's primary function is to service all Federal agencies and their contractors, not just Defense agencies. Thus it is not a direct public source of supply although it does directly serve potential contractors. Its announcing publication, *Technical Abstract Bulletin*, is available only to its authorized users.

However, more than half of its publications have no security or other distribution limitations. These reports are made available to the general public through the National Technical Information Service, an agency of the Department of Commerce, not through the Defense Documentation Center.

The services provided by the Center are impressive, as Mr. Rea shows.

C. C.—Editor

The Defense Documentation Center (DDC), a field activity of the Defense Supply Agency of the Department of Defense (DoD), makes available from one central depository thousands of research and development reports produced each year by United States military organizations and their contractors. The Center also operates computer-based data banks of management and technical information and retrieval systems.

DDC collects, processes, announces, retrieves, and supplies formally recorded technical information in all of the scientific disciplines and engineering fields of interest to the Department of Defense. This information relates to either (a) records of completed work as collected and stored in the Technical

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Report Data Bank, or (b) on-going and planned research and development work being conducted by or for the Defense Department, as collected and stored in the R&D Management System, primarily the Research and Technology Work Unit Information System and associated data banks

History

Prior to March 1963, DDC was known as the Armed Services Technical Information Agency (ASTIA) and was under the operational control of the Air Force. ASTIA was formed in 1951 by consolidating the missions of two documentation centers then serving the Department of Defense—the Navy Research Section in the Library of Congress, Washington, D.C. (operated by the Office of Naval Research), and the Central Air Documents Office at Dayton, Ohio (operated by the Air Force). In 1958, the two document centers were physically combined and moved to Arlington, Virginia. In March 1963, the name of the agency was changed from ASTIA to the Defense Documentation Center, and in July 1963, the center was moved from Arlington, Virginia, to the present location at Cameron Station, Alexandria, Virginia 22314. On November 1, 1963, operational control of DDC was transferred from the Air Force to the Defense Supply Agency.

Although originally created to serve the military, DDC services have been extended to all federal government agencies and their contractors, subcontractors, and grantees. In addition, research and development organizations, without current contracts, may be declared eligible for documentation services by a military service under the Defense Potential Contractors Program.

To assist organizations in registering for service, DDC provides a pamphlet entitled "Registration for Department of Defense Scientific and Technical Information Services," DSAM 4185.3. The pamphlet outlines registration procedures and is complete with copies of the required DoD forms.

Registration for DDC services also assists the user in obtaining access to services offered by Defense-sponsored Information

Analysis Centers (IACs) and by major DoD technical libraries. DDC maintains the central authority file of users having established their eligibility for access to Defense scientific and technical information. Their respective levels of clearance and need-to-know subject categories approved for access to classified information are maintained in this file. A publication titled, "Dissemination Authority List," is generated from this file and is provided to the IACs and technical libraries for use in determining entitlement to service and to validate need-to-know and security clearances for organizations in their user communities.

Service to the Public

DDC provides only limited service to the general public directly. Its principal public contribution is to provide Defense reports which have no security or distribution limitations to the Commerce Department's National Technical Information Service (NTIS). (See article by Bo W. Thott on p. 39.) More than half of the reports received at DDC are made available to NTIS. Through this Department of Commerce program, Defense reports as well as reports of research and development performed by other Government organizations are announced and made available for sale to industry and to the general public.

Every year thousands of Defense-generated technical reports which originally are classified or have distribution limitations lose these restrictions and become publicly available. Agencies which control reports review their status periodically. Automatic declassification programs operate to remove security classification from reports, after which their suitability for public release is determined.

DDC and NTIS are engaged in a special arrangement under which NTIS processes, for DDC, the incoming unclassified/unlimited reports which are announced in the NTIS publication titled, *Government Reports Announcements*, and in other publications of NTIS. Descriptive data for these publicly releasable Defense reports (in machine readable form) are fed back to the DDC data files for retrieval purposes.

Programs and Services

Technical Report Program

Defense facilities and their contractors are required to submit to DDC copies of each report (up to and including Secret and Restricted Data) that formally records scientific and technical results of Defense-sponsored research, development, test, and evaluation efforts.

The incoming documents are screened at DDC to make certain they are of scientific and technical interest and to make certain they are not duplicates of reports already in the collection. Upon selection, each report is assigned an accession document (AD) number and processed into the collection. This control number is used in requesting reports. The prefix AD denotes reports which are under computer control.

Documents are stored in microform and hard copy. Microphotographic copies of all documents are made as they are processed into the system. Prior to 1 July 1964, for unclassified/unlimited, and 1 August 1965 for all other categories, documents were reproduced on roll film (35mm except for a few older documents on 16mm). Since these dates, the reports have been reproduced on microfiche. The microform is used to reproduce hard copies to fill individual requests. Generally, users may request reports in either microform or hard copy.

The first microfiche produced at DDC used the 20:1 page reduction ratio. In early 1972, the 24:1 ratio, adopted as the Federal standard for scientific and technical reports by the Federal Council for Science and Technology, was introduced at the Center. The change increased the maximum number of frames (images) that could be placed on a single microfiche from 60 to 98. The size of the microfiche sheet (148.75×105mm) remained the same.

Report Abstracts

Informative abstracts and descriptive data for the documents are supplied by their authors on Department of Defense Form

1473, "Report Documentation Page." These forms are included in each copy as the first page after the cover when documents are submitted for addition to the AD collection. These abstracts are used whenever possible with minimum editing by DDC analysts. If no abstract is provided, the report coverage is summarized by DDC analysts as a contents note or as a DDC-prepared synopsis.

New Technical Vocabulary

In late 1973, DDC began converting from its official vocabularies of 7,340 descriptors, 7,406 identifiers, and its unofficial vocabulary of 211,130 open-ended terms to a new vocabulary called the Natural Language Data Base (NLDB). The first version of this new vocabulary is a manually constructed computer file of over 65,000 unique terms extracted from the authors' titles and abstracts via specially designed computer programs. All but a few of the official vocabulary descriptors are included in this NLDB listing.

The first official listing—published at DDC in early 1974—was entitled, "DDC Retrieval and Indexing Terminology" (DRIT). This volume will be reissued periodically as the NLDB grows and as refinements are made in the cross-referencing structure. Since the basic terminology is being extracted from current scientific and technical text, there is every expectation that DRIT will develop into a timely compendium of technical terminology.

Copies of the new vocabulary were made available to the organizations registered with DDC. In addition, the publication (AD 773 300) was offered for sale to the general public through the National Technical Information Service. The NTIS price for the 716 page volume is $14.75.

Announcements

For announcement, the technical reports are grouped according to a two-level arrangement consisting of 22 major subject Fields, with a further subdivision of Fields into 188 subject Groups. This is a slightly modified version of the subject

categories developed by the Committee on Scientific and Technical Information (COSATI) of the Federal Council on Science and Technology.

DDC announces the existence and availability of documents it accessions through both its own announcement publication and the announcement media of the Department of Commerce.

Classified reports and unclassified reports having distribution limitations are announced in the classified (Confidential) DDC *Technical Abstract Bulletin* (TAB). Announcements of unclassified reports having no distribution limitations are listed with reports produced by other federal agencies in the *Government Reports Announcements*, published by the Department of Commerce. New issues of these announcement publications are distributed biweekly.

Indexes

Companion index volumes are available with each issue of the aforementioned announcement publications to aid each user in determining quickly which new accessions to the collection are of particular interest to him. Each of these reference tools include a Corporate Author-Monitoring Agency Index, Subject Index, Personal Author Index, Contract Number Index, and a Report Number (or correlation) Index. Because of the classified and limited distribution reports announced in TAB, its indexes include a Release Authority Index. These indexes are cumulated quarterly and annually. The Annual Indexes to TAB are available in either full-size or microfiche form.

Automatic Magnetic Tape Dissemination (AMTD)

Users may subscribe to this service and receive the full TAB text on 400 or 600-foot standard mini-reels of magnetic tape, suitable for use on automatic data processing equipment. Tapes are classified and are distributed on a subscription basis; $1,000 for the 26 issues.

Defense Documentation Center

Current Awareness Service

DoD Information Analysis Centers and certain other selected users receive the current awareness service, which provides bi-weekly bibliographies consisting of descriptive entries for documents announced in current *Technical Abstract Bulletins* in specific subject areas. These bibliographies are produced by computer search according to the organization's pre-established subject interest profiles.

Makeup of Collection

The DDC technical report collection totals more than one million titles. The AD collection, which is under computer control, consists of documents processed since 1953. Documents accessioned before 1953 are contained in the Air Technical Index (1947–1953) and the Technical Information Pilot (1945–1953) collections which are not automated.

Requesting Reports

Organizations registered for DDC services may request copies of technical reports in either full-size or microform. The Center assesses a $3 service charge for full-size copies of limited distribution and/or classified technical reports. The service charge for a microfiche copy is $0.95 for regular distribution and $0.35 each for copies provided under the DDC Automatic Distribution of Documents Program. Requests for large numbers of copies of a single title in full-size form may be filled by providing reproducible masters, from which the requester makes his own copies. The charge for a reproducible master of a document is $3 plus 15 cents per page. Unclassified/unlimited reports are sold by the National Technical Information Service (NTIS) and are subject to that agency's pricing policies. NTIS charges additional fees for full-size reports containing more than 300 pages and for those furnished more than two years after announcement. NTIS charges $1.45 for microform copies.

Upon registration, a user organization that has established an NTIS deposit account to cover service charges is sent the required forms for requesting copies of limited distribution and/or classified technical reports. To request a document from DDC, a user records the control (accession or AD) number of the document, his NTIS deposit account number, the contract or grant number under which he is requesting service (if a non-government user), the date of the request, and an indication of the type of copy desired, e.g., microform. The user code number assigned the organization by DDC should be included in all such requests and correspondence.

Requests for limited distribution and/or classified documents from users without NTIS deposit accounts are submitted to NTIS with prepayment by check, money order, or American Express credit card.

All users submit requests for unclassified/unlimited documents to NTIS, although users with NTIS deposit accounts may order such documents from DDC.

If the customer prefers to be billed, NTIS will ship his order without prepayment but a $0.50 service charge is made for each different title sent, but only one charge for multiple copies of the same title.

Automatic Document Distribution (ADD)

The ADD program referred to earlier is designed to automatically furnish DDC users microfiche copies of classified and limited documents in selected subject areas. This service anticipates a user's needs and is based on his subject-interest "profile" matched against the data bank of newly accessioned documents. The objective is to supply microfiche copies of documents to ADD registrants concurrent with the announcement of these documents in TAB. The cost is $0.35 for each microfiche copy mailed. Users must possess a deposit account with the NTIS in order to participate in the ADD program.

Authority to provide a document from the DDC collection is determined by the security classification of the report and by

any release limitations imposed by the source of the report. Special procedures are in effect for requesting copies of documents having limitations on their distribution. Classified information is disseminated only within the need-to-know categories specified on the registration form approved for the requesting activity.

Discard or Retirement Rate

DDC has an archival function by DoD directive. Once a report goes into the collection, it usually remains a part of the collection indefinitely, since DDC has secondary distribution responsibility and is often the only source for older documents. Old documents, particularly those reporting basic research, have frequently been useful in the development of new concepts and ideas, and thus remain in demand.

Some purging of the collection results from recall and updating actions by document controlling agencies (i.e., the agency for whom document is prepared). Erroneous and outdated reports are eliminated or superseded in this manner. Older collections are occasionally transferred intact from the DDC collections. For example, in 1966 a large collection of captured German documents was transferred to the Air and Space Museum of the Smithsonian Institution, Washington, D.C. 20560, and in 1960, the OSRD (Office of Scientific Research and Development) collection was transferred to the Library of Congress, Washington, D.C. 20540. The reports are now available at the new locations.

Bibliographies

As a related function within the technical report program, DDC provides a bibliography service to registered user organizations. Through this service the Center produces listings containing abstracts which describe technical reports in the collection that are pertinent to specific requests.

This is accomplished by utilizing retrieval terms assigned to each document during input analysis. These terms are of two general types: descriptors, or terms more generic than a proper

name, e.g., torpedoes; and identifiers, or terms which are proper names, e.g., M-44 torpedoes. In addition to descriptors and identifiers, cataloging information, such as contract, report number, and personal and corporate authors, can be used for retrieval. A search pattern for computer processing is prepared by using these terms in logical combinations to provide highly specific output.

DDC bibliographies take three forms. The first of these concerns bibliographies prepared for those subject areas for which numerous requests for bibliographies are anticipated. Such bibliographies are added to the DDC collection complete with AD number and announced and requested in the same manner as other technical reports. These bibliographies may contain one or more of the following indexes: Subject, Personal Author, Corporate Author/Monitoring Agency, Contract Number, Title, Source Report Number, or AD Number.

The second type of bibliography, the report bibliography, is prepared in response to a specific request from a user organization. The Center prepares a computer search strategy to locate documents most pertinent to the particular problem or project. The resultant bibliography is sent as a single document. Each page contains a separate report description.

User organizations having access to telecommunications equipment may request rapid response bibliographies, the third type. The response to such requests is a listing of AD (control) numbers only (no abstracts) for technical reports pertinent to the requester's problem or project. In order to utilize these, the requester must have access to a file of TAB or documents.

DDC bibliography services are available without cost to registered DDC users only. Reference services are provided to anyone who makes an inquiry about a technical report. If he is a non-user, he will be given report identification information and referred either to NTIS or the agency which distributed the report. If the report has limited distribution, steps are often taken to have the report reviewed to determine if it can be released and sold to the requester.

Retrospective Bibliographies on Magnetic Tape (RBMT)

These bibliographies are prepared by scanning DDC data files in the same manner that report bibliographies are assembled except that the resultant information is transferred to 2400-foot magnetic tape reels provided by the requesting activities. A charge of $330 per 2000 citations is assessed which covers computer processing, quality control, and shipping.

Compendia

In addition to the current listings, DDC is now selling "Defense Research and Development of the 1960s" to its registered users. It is a 10-year compendium of descriptions of the 400,119 technical reports announced by DDC during that decade. The data package, available on 16mm microfilm or magnetic tape, contains four five-year sections covering classified and limited distribution reports, and unclassified and unlimited technical reports, respectively. Also available is a similar one-year compilation of 1970 announcements.

R&D Management Information Systems

Work Unit Information System

While DDC is a major source of documents on completed research and development, it also is a central source of management and status information on defense R&D in progress. The Center's major service in this area, called the "Research and Technology Work Unit Information System," is designed to provide scientists, engineers, and managers in the federal R&D community with an automated rapid retrieval capability.

Essentially, the purpose of the R&T Work Unit Information System is to provide the means to determine quickly who is doing what research, when, where, and how. Approximately twenty-five data fields are used to describe each work unit, the logical segment of an R&D effort chosen by local management

for purposes of technical control. These data fields include the title of the project or task, contract or grant numbers, technological areas covered, security levels of the efforts, responsible Defense organizations and performing organizations, names and telephone numbers of key personnel in those organizations, and funding information. In addition, the summary provides for descriptions of the technical objectives, approaches to be taken, and the progress made on the various efforts. The information is computer-stored to permit retrieval in a wide variety of logical combinations of the data elements.

DoD components responsible for scientific and technical work being performed at the work unit level within Defense programs are required to provide the summaries to DDC. The work unit descriptions are submitted in machine-readable form, either as punched cards or as magnetic tapes.

The system helps R&D managers to identify on-going efforts in any scientific discipline or area of technology, to coordinate current efforts, and to determine whether specific areas of endeavor adequately reflect R&D policy guidance. The scientists and engineers may use the system to determine the approach and current status of technical efforts related to their own tasks, to identify scientists and engineers working in areas of similar technical interests, and to maintain current awareness through periodic review of progress statements in pertinent work units.

Data from the system are available in a variety of formats to Defense components and other federal agencies. For instance, they must request information in the forms of statistical summaries, tabulations, and complete or partial printouts of selected resumes. Limited access to the data bank is available to contractors and grantees of federal agencies through the use of a single, fixed-format report.

Information from the system is used also to supply defense input to interagency data collections or coordinating groups such as the Committee on Academic Sciences and Engineering (CASE) Phase II Reporting System, and the Science Information Exchange of the Smithsonian Institution.

R&G Program Planning Data Bank

The R&D Program Planning Data Bank contains descriptions of R&D projects planned by DoD organizations. This information, submitted semi-annually on DD Form 1634, is available only to the Director of Defense Research and Engineering and other DoD managers for use in reviewing the proposed R&D efforts of Defense organizations. The information in this data bank can be retrieved through the Defense RDT&E On-Line System and through computer printouts.

Development Program

DDC is responsible for the development of long-range concepts and requirements for new and improved Defense RDT&E information systems, services, and products. The development program is concerned with identifying customer requirements, the state-of-the-art of technologies concerned with information storage and retrieval, and with cooperative interagency systems development when such systems relate to information transfer.

The Defense RDT&E On-Line System, described below, is a product of the development program and is now in an operational status. A technique for machine-aided indexing is in the process of becoming operational within DDC on a major data base.

Two other projects that should be cited, which are still in the developmental stage, are the creation of an advanced service support package for DoD Information Analysis Centers (IACs), and a terminal link with NASA to explore the feasibility of accessing each other's data bases.

The IAC package consists of placing the analysis centers on-line and developing and testing a remote input capability so that the IAC data base is stored at DDC. Given such a capability, the IACs can use the central facilities of DDC for storage and retrieval while retaining their identities as analysis centers. DDC will also investigate the feasibility of using IAC indexing for all newly accessioned DDC reports that are

in the technical areas covered by the IACs. The feasibility of referring retrieval requests for report bibliographies in selected technical areas will be determined jointly by DDC and the IACs. Additionally, IAC information will be accessible to on-line users.

NASA and DDC are planning to exchange terminals so that NASA can access DDC files and DDC can access the NASA files. Both organizations can become familiar with each other's protocols, and areas of commonality will be investigated. This kind of interchange is designed to provide the participants with firsthand knowledge in the area of networking and will provide a first look at communication problems of all kinds: hardware, software, and natural language retrieval.

Defense RDT&E On-Line System

DDC operates the Defense Research, Development, Test and Evaluation On-Line System which extends to certain major user organizations the capability of individually querying the Center's technical report data bank, the Work Unit Information System, and the R&D Program Planning Data Bank from terminals established at their facilities. Approximately 30 remote terminals were in operation at the beginning of 1974.

A typical installation consists of a cathode ray tube (CRT) display device with a keyboard and page printer. The user types a query to one of three major data banks (technical reports, work-in-progress, and planning data) and gets an answer—usually within a few seconds—on the viewing screen. Tutorial instructions displayed on the CRT enable the user to pursue the search down various paths and to switch from one data bank to another as the retrieval strategy develops.

More than 750,000 technical reports in one data bank alone can be tapped via the on-line system. With DDC's recently expanded computer memory banks, full abstracts as well as other descriptive information are now available at the remote CRT screens for all documents accessioned by DDC during the most recent three year period. For documents announced by DDC during the previous three year period,

abstracts are dropped but descriptive citations are available. For reports older than six years, only the AD numbers are available for display.

This emphasis on the newest reports affords the user access to a six-year collection that includes detailed retrieval information about 240,000 reports.

The "tech report" data bank can be searched in several ways. Data can be called up by descriptor (subject term), author's name, report number, contract number, contractor's name, and other elements using any desired coordinated search pattern.

A search can be restricted, for example, to specified time periods, or to only the latest X number of reports, or to carefully defined subject areas.

Having scanned past efforts as represented by the tech report data bank, the user may want to see what current work is being done.

He can do this by changing to the Research and Technology Work Unit Information System (WUIS) data bank. Through it, he has access to approximately 20,000 resumes of ongoing scientific and technical efforts in DoD. Also available are another 50,000-plus WUIS records that have been terminated or completed.

Here, again, the user can search by technological field, program element, project number, the name of the responsible DoD organization, etc.

If the user is interested in future DoD programs he can call up the Research and Development Program Planning (DD 1634) data bank. The 13,000 records currently in this bank concern planned RDT&E efforts.

Typical questions that can be answered, usually within a few moments, include: What is the latest report submitted by Scientist X?—What records do you have on Subject Y?—

How much money was spent on Project J?—Is Program Z, which we are considering for the near future, being planned or perhaps even worked upon by any of the military services? —How many, and for what amounts, were contracts issued for Project K?—What foreign or academic or non-profit organizations are doing studies under DoD contracts in Subject Y?—etc.

Direct, on-line answers to questions like these represent another step in DDC's purpose of preventing duplication of RDT&E effort and saving time in the retrieval of information vital to defense studies.

Information centers or technical libraries can often supply full copies of documents identified from the terminal searches or assist the scientist, engineer, or manager in ordering them from DDC.

If a user facility receives microfiche from DDC under the Automatic Document Distribution (ADD) program, the chances are good that reports identified as pertinent are already in its library. Twice a month the ADD program operated by DDC provides to subscribing organizations packets of microfiche of all new reports accessioned in selected subject areas within "interest profiles."

Probably the greatest advantage to the user is the accessibility of the equipment. Access to the terminal provides user with a personal tool to make his own inquiry, according to his own desires, at his own schedule and with manipulation to allow him to get the results he personally considers satisfactory. In essence, the system offers the element of privacy between the user and the computer. It encourages imaginative exploration without the embarrassment of what might be thought of as the foolish question.

Classified information transmitted within this remote on-line retrieval system is protected through the use of telecommunications security (TSEC) equipment.

Other Programs and Services

Recurring Information System Reports

This report system provides an automated method of handling DDC's information systems reports that are required regularly on a monthly, quarterly, semi-annual, or annual basis. The reports are prepared from the Work Unit Information System, R&D Program Planning, and independent R&D data banks. Search decks corresponding to recurring reports requirements are put on a Master Search File which is updated monthly to insert new recurring reports, to make changes or modify profiles internal to individual search decks, and to remove cancelled reports.

Referral Service

DDC's referral service extends the scope of its technical report program to include the acquisition, storage, and retrieval of information concerning Defense-sponsored specialized sources of scientific and technical information. When authorized users require information exceeding that contained in DDC's various collections, this service is used to direct them to organizations or to individuals which are known or potential sources of this expertise, or to the National Referral Center for Science and Technology.

Additional reference services provide for processing of requests for documents whose distribution is limited, certain older collections, and a 24-hour telephone answering service maintained by recording questions and answering by telephone.

DDC Digest

This four-page publication is distributed automatically to each established user of the Center's services. It announces plans, changes in service, new Center publications, and other developments in the scientific and technical information field. It is published periodically, generally at intervals of between one to two months.

Value of DDC Services

Effective use of DDC services can save valuable research time and talent for organizations involved in research and development programs sponsored by the Federal Government. The technical report and data bank programs can be used to determine quickly whether all or part of a particular project has already been accomplished, or is being studied by another research group. The various recorded experiments and experiences serve as valuable time-saving guides.

Success in research is directly related to the ability to acquire cumulated knowledge concerning subjects to be studied. Through its services, DDC enhances this ability for organizations registered with the Center.

The National Technical Information Service

Bo W. Thott

The National Technical Information Service is another large depository of government research publications containing some 800,000 titles as Mr. Thott indicates, and growing at the rate of some 60,000 titles annually. National Technical Information Service is the central source for the sale of government sponsored research.

It is notable that the National Technical Information Service, like the Government Printing Office, must pursue an aggressive acquisition policy to obtain reports from government agencies. Despite the directive from the Federal Council for Science and Technology, NTIS cannot compel agencies to furnish it with the results of their research.

As in many other government programs, the National Technical Information Service must be self-sustaining, or largely so. The public must pay for its services, and the production and dissemination costs are rising. The general effect of these mandatory self sustaining policies on costs is a blow to libraries who, by and large, cannot afford them. It is particularly ironic that many indexing and announcing services cannot be furnished even to Federal depository libraries. This is another reason for us to re-examine the depository system in the light of the total Federal information programs.

The National Technical Information Service has another difficult problem, as Mr. Thott notes, in that "four different and overlapping major thesauri are used in the indexing of entries in the NTIS data file." Ms. Fass's paper has further comment on this problem.

C. C.—Editor

Scope and Authority

The National Technical Information Service (NTIS), an agency of the Department of Commerce, is a central source for retrieval and public sale of Government-sponsored research.

Bo W. Thott is Chief Acquisition Specialist at NTIS.

National Technical Information Service

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NTIS is directed to collect information from "whatever sources, foreign and domestic" and make such information available to industry, business, government, universities, and the general public. (15 U.S.C. 1151–1157) This mission was reiterated in the President's 1972 Science and Technology Message in which NTIS was designated as the focal point for transferring the results of Government research and development activities to wider use in the private sector. The agency is obligated by statute to recover its costs and has become largely self-sustaining. Predecessor organizations were Office of Technical Services (1946–64) and the Clearinghouse for Federal Scientific and Technical Information (1964–70). NTIS activity has expanded steadily; in fiscal 1973 NTIS distributed more than 2.6 million copies of reports in both paper and microfiche form, 15 percent more than the previous fiscal year.

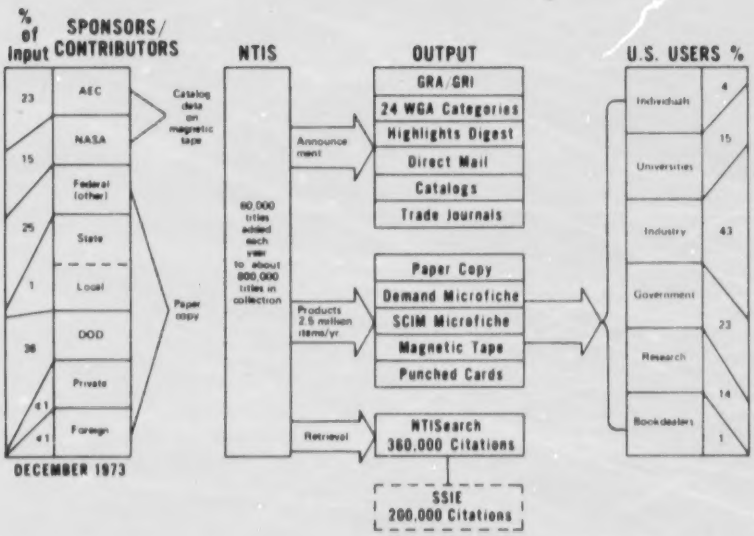

Figure 1 National Technical Information Service, Model of Input and Output.

Accessioning

NTIS receives information generated by Federally-sponsored research from more than 300 Government offices and agencies, and from some state, local, private, and foreign sponsors (Figure 1). Although the use of NTIS as the mechanism for public access was officially endorsed by the 1963 directive of the Federal Council for Science and Technology, there is no law that requires any organization to send the results of Federal research to NTIS. It is necessary for NTIS to convince the individual agency chiefs and information managers within departments and commissions that the NTIS information system can adequately serve their users. Although most agencies use NTIS, some prefer to rely exclusively on their own primary distribution and press releases.

The NTIS collection originally included only technical and scientific material but since 1970 business and other commercial information has been added. Generally, information is in the form of reports received either from the sponsoring offices or directly from contractors and grantees with instructions from the sponsors. Translations are received from the offices requesting the translation work, and journal reprints from the Department of Defense and Commerce at the request of these agencies. NTIS also handles large, indexed collections in microform, as well as data files and computer programs on magnetic tape or punched cards. The total collection comprises about 800,000 titles to which are added some 60,000 new reports annually. Of these, three fourths come from three major sources: Department of Defense (DoD), National Aeronautics and Space Administration (NASA), and Atomic Energy Commission (AEC) (Figure 1). But the mix is changing as NTIS seeks increasing input from other Federal agencies, particularly from these whose missions are in the social and biological fields.

Information Analysis Centers (IAC) are utilizing NTIS to market their products and services now that these services are no longer restricted to registered users. Among the IACs participating so far, are:

Chemical Propulsion Information Agency, Johns Hopkins University, Baltimore, Md.

Cryogenics Data Center, National Bureau of Standards, Boulder, Colo.

Explosives Laboratory, Picatinny Arsenal, Dover, Del.

Infrared Information and Analysis Center, Environmental Research Institute of Michigan, Ann Arbor, Mich.

Machinability Data Center, Metcut Research Associates, Cincinnati, O.

Metals and Ceramics Information Center, Battelle Columbus Laboratory, Columbus, O.

Mechanical Properties Data Center, Balfour Stulen Inc., Traverse City, Mich.

Nuclear Safety Information Center, Oak Ridge National Laboratory, Oak Ridge, Tenn.

Plastics Technical Evaluation Center, Picatinny Arsenal, Dover, Del.

Reliability Analysis Center, Rome Air Force Base, Rome, Ga.

Standard Reference Data Center, University of New Mexico, Tucson, Ariz.

Toxicology Information Response Center, Oak Ridge National Laboratory, Oak Ridge, Tenn.

Negotiations are underway with the Atomic Energy Commission to provide NTIS marketing services for up to 20 of its IACs not yet participating.

About 10 percent of NTIS's input consists of reports formerly classified or otherwise limited. The bulk of these declassified or delimited reports not previously available to the public comes from DoD; a few come from NASA. Unless DoD makes an exception, security classification is removed automatically after documents reach a specified age. Occasionally, a DoD controlling office may declassify a document earlier. The Office of the Assistant Secretary of Defense (Public Affairs), either directly or by delegation, then determines the nature of any subsequent public release. The Defense Documentation Center (DDC) Alexandria, Virginia monitors declassification and delimitation of DoD reports in the DDC collection but DDC cannot authorize public release of the reports it handles. Due to recent efforts in DoD to lift restrictions on distribution, more than 11,000 delimited reports, ranging in age from 2 to 25 years, were released to NTIS in fiscal 1973 alone. These delimited reports were in addition to the 18,000 current DoD reports routinely processed annually. Because of this huge processing workload, NTIS has had to select only the most significant titles for announcement and simulataneous inclusion in the NTIS bibliographic data file.

Announcing and Promoting

The NTIS announcement media are designed to meet the information needs of a variety of users (Figure 1). The trend is

toward expanded service to assist those users outside the library community.

Government Reports Announcements (GRA), intended mainly for reference, is the comprehensive NTIS listing with basic bibliographic information and abstracts of current and recent reports accessioned. It is published every two weeks at an annual, domestic subscription price of $70. Citations are arranged by 22 fields and 175 groups in accordance with the subject category list by the Federal Council's Committee of Scientific and Technical Information (COSATI).

Government Reports Index (GRI) is published concurrently with GRA and includes indexes arranged by subject, personal author, corporate author, contract numbers, report numbers, and accession numbers. The domestic subscription price is $70 or, combined with the *GRA*, $125. NTIS also publishes a *Government Reports Annual Index* of almost 7000 pages available at $300.

Publication dates for GRA and GRI were changed in January 1974 from twice a month to every two weeks (26 issues per year) to achieve smoother production.

Weekly Government Abstracts (WGA) provide frequent and fast announcement of citations in 24 broad, high-interest subjects selected to make the WGAs into awareness tools for the engineer, scientist, and businessman. Although the citations, which normally include abstracts, are based on bibliographic records compiled for GRA, rapid processing and expedited photocomposition and offset printing of the WGAs permit publication within two weeks after receipt of reports by NTIS. The current standard editions of WGAs are:

Administration

Agricultural and Food

Behavior and Society

Biomedical Technology and Engineering

Building Technology

Business and Economics

Chemistry

Civil and Structural Engineering

Communication

Computers, Control and Information Theory

Electrotechnology

Energy

Environmental Pollution and Control

Government Inventions for Licensing

Industrial and Mechanical Engineering

Library and Information Sciences

Materials Sciences

Medicine and Biology

NASA Earth Resources

Survey Program

Natural Resources

Ocean Technology and Engineering

Physics

Transportation

Urban Technology

More than 22,000 copies of these WGAs are mailed each week to subscribers at annual domestic subscription prices ranging from $30 to $45.

Government Inventions for Licensing, a special WGA, which includes illustrations, costs $165. As additional subjects assume greater significance, NTIS plans to expand the list of WGAs to meet user needs. *Government Reports Topical Announcements* (GRTA), based on GRA COSATI fields, were the semi-monthly predecessors to WGA. They are no longer published, practically all subjects having been incorporated in the more timely WGAs.

Highlights Digest, using the same categories as the *WGA* series, has superseded the 57-category *Fast Announcement Service* (FAS). *Highlights Digest* has condensed citations of the most noteworthy reports in each category for the busy reader—no full abstracts— and key subject headings to help the user determine the subject area of each report cited. Publication frequency depends on the category and ranges from every three weeks to every six weeks.

In addition to the regular announcement media, direct mail is used to reach new users. Beginning with rented commercial lists and NTIS's sales records, NTIS has gradually refined the numerous mailing lists, one for each major subject category, and has achieved responses well above those normally expected for this type of communication. For example, one 13,000-piece promotional mailing generated a 30 percent response in orders. Seeking to broaden its user base, NTIS

in the past two years has markedly stepped up its announcements of selected titles to professional and trade journals, government field offices, and NTIS sales agents.

Format and Distribution

Reports announced by NTIS are generally available from NTIS in both paper copy and microfiche: some are available elsewhere in paper copy with NTIS supplying the microfiche; and a few are available only from other sources. Additional media used for special products are microfilm, magnetic tape, and punched cards (Figure 1).

Printing and microphotography are performed for NTIS by the Department of Commerce's Office of Publications, which operates a Government Printing Office (GPO) field plant at the NTIS site in Springfield, Virginia, under the rules of the Joint Committee on Printing.* Large print jobs, beyond the capability of the on-site field plant are sent to the GPO which either handles the job at its main facility or contracts it to private printers.

Papercopy of reports most in demand is kept in stock to permit immediate filling of orders. But the low demand for many specialized titles makes advance printing uneconomical for almost two thirds of the titles NTIS receives. Thus, for the bulk of NTIS's report holdings, copies are reproduced, one at a time, in response to individual orders.

In addition to filling orders for individual reports, NTIS offers subscriptions to the various announcement media, to 14 periodicals, and to 38 irregularly issued translation serials prepared by the Joint Publications Research Service (JPRS). Among the periodicals are *NASA Technical Briefs*, *Aircraft Accident Reports* by the Department of Transportation, *Export and Import Data* by the Bureau of the Census, *Reviews of Metals and Ceramics Technology* by the Metals and Ceramics Information Center, and *Selected Water Resources Abstracts* by the Department of the Interior. Total subscriptions to all

*Joint Committee on Printing, Government Printing and Binding Regulations, No. 22. (December 1972).

NTIS periodicals and the JPRS translations reaches almost forty-five thousand.

Microfiche distribution by NTIS has grown at a more rapid pace than papercopy distribution, mainly because of the lower charge for microfiche and the increasing availability of low-cost microfiche readers. In fiscal 1968 NTIS filled 39 percent of all orders (including ad hoc requests, subscriptions, and standing orders) with microfiche copy; in 1969, (when a service charge had been introduced by DDC for their papercopy reports previously distributed free of charge to DDC users) the microfiche share increased to 64 percent; and in 1973 the share had reached 74 percent. The trend to greater microfiche use should continue as paper and printing costs rise and as storage problems grow.

The NTIS microfiche has had a 98-image grid since April 1972. The 98-image linear reduction ratio averaging 24 to 1 is a change from the 72-image grid, the so-called COSATI standard microfiche, which has a reduction ratio of 20 to 1, and has been used since July 1964. Pre-1964 reports are available in 16 and 35mm film (NTIS and DDS reports) or odd-size microfiche either larger or smaller than the standard size (NASA and AEC reports). Paper copy and microform of most pre-1961 reports are still available from the Library of Congress Photoduplication Division but not from NTIS.

Automatic distribution of newly accessioned reports in microfiche form is available through the Selected Categories in Michofiche (SCIM) service. Through SCIM information reaches the subscriber faster and at lower cost than if he orders each microfiche from the various announcement media. The subscriber may specify that he wants reports in a certain subject category or those sponsored or accessioned by a large contributing agency. The subscriber may elect to receive microfiche by the main subject of each report only or by the secondary subjects as well. When a user subscribes to microfiche under more than one subject, NTIS screens out those duplicate reports that fall in more than one category.

A customized SCIM service based on individual user interest profile was introduced in 1973. On request, NTIS, will develop a profile for a user by subject terms and will maintain this

profile through periodic review. This special SCIM service eliminates receipt of microfiche outside the area of interest of the user and, for the large user, leads to reduced fees and filing costs.

Data files and computer programs are available in magnetic-tape format. Examples of files listed in NTIS's recent catalog *Software & Data Files* include "Federal Individual Income Tax Return Data for Each 5-Digit ZIP Code Area in the United States, 1969;" "Federal Supply Code for Manufacturers" produced by the Defense Logistics Service Center; and "Master Data Tapes of the U. S. Budget." Among the computer programs are "Cartographic Automatic Mapping Program" by the Defense Department; "OMNITAB II," a general purpose statistical routine program developed and tested by the National Bureau of Standards (NBS); and "FORTRAN Programs for Text Editing, File Manipulating, and Automatic Typesetting," also by NBS.

One of the NTIS magnetic-tape data files available to the public is the file of bibliographic citations added to the NTIS data file every two weeks. The bibliographic tape is available under an NTIS lease contract and is used extensively by information centers and large users who operate their own information services for search and dissemination.

Data files and computer programs on magnetic tapes are distributed in most of the existing IBM tape modes, for example, 7-track, 556 characters per inch and 9-track, 800 characters per inch. NTIS's capability to reproduce magnetic tapes has recently been expanded through acquisition of a new computer and a special tape-copying machine.

Retrieval

NTISSearch (en-tih-search) is a computerized, on-line retrieval service that uses the 360,000 bibliographic citations accumulated by NTIS since July 1964, the only comprehensive publicly available file of Federal research reports. Customer searches made by NTIS are priced at $50 for up to 100 abstracts with added charges for additional abstracts. Customers requiring frequent access to the file may rent terminals. Direct access to the on-line NTIS data base is available

through the Lockheed Aircraft Corp., the contractor operating the bibliographic data bank for NTIS.

Searches of Federal research projects in progress can be executed through NTIS by the Smithsonian Information Exchange (SSIE) (Figure 1). This agency maintains a bibliographic file on work-in-progress projects covering the past two to three years; the number of items in the SSIE file averages 200,000. The arrangement provides a single-point user contact for searches covering both NTIS and SSIE holdings and permits NTIS to offer a double search at a price less than the sum of two individual search fees.

Four different and overlapping major thesauri are used in the indexing of entries in the NTIS bibliographic data file, which make searching by subject difficult. NTIS's three main contributors—AEC, NASA, and DDC—each use a thesaurus best suited to its particular needs. NTIS uses the Thesaurus of Engineering and Scientific Terms (TEST), developed jointly by the Department of Defense, under Project LEX, and the Engineers Joint Council. (TEST has not been adopted for use by DDC.)

Upon request, NTIS prepares bibliographies from its data file. These bibliographies may contain citations of reports selected on the basis of sponsoring or performing agency, or by subject, as specified by the user. For example, the Environmental Protection Agency (EPA) recently had a 3800-item bibliography prepared, after first having located and contributed those relevant reports that were generated before EPA was established and were not previously included in the NTIS system.

Standardization and Economy

NTIS supports documentation standards to achieve efficiency in its own operations and those of others nationwide. It encourages its contributors to adhere to the documentation standards issued by the American National Standards Institute (in the Z39 series) and by the National Microfilm Association. NTIS requires, for example, that reports sent for accessioning contain the prescribed Report Documentation Page (RDP) originally developed by COSATI and that they conform to

reasonable rules on page size, pagination, legibility/reproducibility, and foldouts. As a result of format review, about 12 percent of all reports received for input are returned to contributors for improvements, mostly dealing with problems of legibility. The legibility of computer printout tables has improved markedly over the past few years, in part perhaps as a result of a letter campaign by NTIS recommending a new ribbon for the computer printer whenever the output is intended for reproduction rather than normal analysis. NTIS sometimes reluctantly accepts reports that are marginally reproducible when they might otherwise be lost to the public, but adds a caveat on the unsatisfactory legibility to the citation. NTIS does not have the manpower to edit or retype reports received for publication nor can NTIS compel project managers to furnish good copy from which legible prints can be made.

An active program to promote the use of unique report numbers, meaningful titles, single-spacing of lines, and pagination has paid off, but not without meeting some resistance. One contributor insisted that a 38-page report did not need any pagination; another could not understand why he could not achieve literary variation by having four different titles on one report. Unfortunately, numerous requests by report title are returned unfilled by NTIS when the requester quotes a cover title that does not match the one NTIS takes from the title page. By consistently quoting accession or unique report numbers in their orders, NTIS users can eliminate the delays connected with ordering by titles.

Pricing

NTIS believes the general public, industry, and science are best served when they can retrieve and obtain a report easily and continually, even with a service charge, rather than haphazardly or not at all in the absence of a service charge. NTIS operates with a trust fund (income from sales is used for operation of the agency) which requires the agency to develop procedures for the businesslike recovery of costs.

NTIS prices the paper copy of each title on the bases of page count, content, and expected demand. A 75-page report stocked in papercopy, for example, is given a domestic price of $3.75. Another report of the same size, but with expected

low demand and therefore not stocked, is priced at $6.75 which reflects a cost of 5 cents per page in single reproduction plus a $3 handling charge.

Somewhat higher prices are used for products from those agencies obligated to recover part of their production costs; for example, the Information Analysis Centers, AEC, and the Office of Standard Reference Data at the National Bureau of Standards. These agencies receive from NTIS that portion of the sales price which exceeds the NTIS cost of handling the distribution.

Conversely, NTIS will sell reports below cost if a sponsor insists on low prices for a certain category, and if the sponsor reimburses NTIS for the difference between the subsidized price and the regular NTIS price.

Microfiche were, until recently, sold at a loss. The domestic unit price was raised, therefore, to $1.45 per title as soon as it became possible to offer an expanded SCIM program, including customer profile. The SCIM program offers NTIS's customers a wider use of a low-cost, automatic distribution system that drops the domestic unit price to 45 cents.

Although the NTIS reproduction and distribution operation pays for itself, such is not the case for the input processing operations which are currently subsidized by appropriated funds. These operations comprise abstracting, indexing, keyboarding, announcing, preparing master microfiche, and updating the bibliographic data file. The appropriated funds NTIS receives, accounting for 16 percent of NTIS's total budget, pay in part for the input processing. However, these funds must shortly be replaced by source client fees to bring NTIS's operations closer to the requirement of being wholly self-supporting. New source clients to the NTIS bibliographic data file are already paying an input charge of $35 per title; old source clients will be required to make similar payments as soon as new agreements are concluded. This $35 fee may be compared with the page charge of professional journals. In return for the input fee, NTIS provides announcement, selective promotion by subject, permanent availability in paper copy and microfiche, and on-line search capability.

NTIS is often asked how the Superintendent of Documents (SoD) can sell publications for so much less than NTIS. A straight comparison is difficult because SoD sells large editions of few titles selected for wide interest, whereas the specific nature of NTIS's larger number of titles results in papercopy sales averaging less than 12 per title. The main reason, however, for the low SoD prices is that the printing set-up cost at SoD is borne by the sponsoring agency and the sales price for each item is based only on the low, incremental cost of the print overrun. These low prices do not permit making the information available over a long time. Consequently, reports frequently go out of print at SoD. In selected cases NTIS takes over subsequent distribution, by necessity at a higher price, to permit cost recovery of low-volume press runs or single reproduction.

Every NTIS user has to pay for NTIS services, and this includes Government agencies; they do not get a free ride at the expense of the private sector. Congressmen are asked to refer their inquiring constituents directly to NTIS to pay for their copies rather than getting them free via Capitol Hill.

The demand for reports from NTIS, although huge overall, is modest in the particular because of the specialized nature of the subject matter. A report that sells more than 100 paper copies has done well. NTIS has many reports for which not a single copy has been sold, an inevitability in such a comprehensive information system.

New and Future Services

Improvements in NTIS's services center on:

- increased transfer of technology from the Federal to the private sector through such efforts as the marketing of products and services of the Information Analysis Centers;
- increased use of U. S. Government-owned patents by the private sector; and
- development of a catalog of computerized data files maintained by Federal agencies.

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NTIS believes that in the next few years Federal agencies generally will issue mandatory requirements that the results of their sponsored R&D be made accessible to the public, to industry, and to science by modern methods of information handling rather than by traditional methods. NTIS is gearing up, therefore, for an increased workload of both input and output in accordance with its mandate, assisted in this respect by being able to deal with the individual tasks in real dollar values rather than in the complicated structure of values created by subsidies. NTIS relations with privately produced documentation and the private information industry in general also will be facilitated by the assignment of true values for information services.

In the past, NTIS has been able to benefit from comments by its users. NTIS still welcomes suggestions and considers any feasible plan for improved services to better fill the needs of its users.

Using The National Archives

John E. Byrne

Access to archival material is not less important to the information seeker than published materials. The National Archives, as Mr. Byrne's article indicates, has made a good effort to place microfilm copies in its eleven Federal Archives and Records Centers as well as original archival material of local interest.

The National Archives has the enormous task of evaluating for retention the records of government agencies and preparing some means of bibliographic control over the material, once it has been sorted and arranged. I said in the general introduction that the National Archives does not have an overall indexing and abstracting service for its accessions (such a service would necessarily be different in nature, of course, from those we have been discussing) but it does issue several useful guides, lists, and inventories. The announcements of recently declassified materials carried in *Prologue*, the National Archives journal, are especially important. Some interim cumulation of these accessions would be desirable as the effects of *Executive Order 11652* begin to be increasingly felt and more records are declassified as provided in that order.

C. C.—Editor

The United States came nearly 150 years late to the establishment of a National Archives. Perhaps it was because an impatient people were so concerned with growth that they did not have time for the orderly preservation of the records of their past. That is not to say that no one cared. Not only were there scrupulous record keepers such as Charles Thomson, secretary of the Continental Congress, but there were also vigorous voices down through the years calling for a central agency to keep the Nation's records straight. However, the magic legislative formula to turn the hope into a reality was

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not put together until 1934 when the Congres enacted, and President Franklin D. Roosevelt signed, the act creating the National Archives. (Public Law No. 432, June 19, 1934. 48 *Stat.* 1122)

Forty years have passed and the oldtimers who remember what it was like to start a National Archives from scratch are no longer at work in the National Archives Building on Pennsylvania Avenue, halfway between the Capitol and the White House, in Washington, D.C. But their stories of what it was like to track down and gain possession of the scattered records of the Government's past are remembered, and photographs in archive files, of jumbled records in garages and attics, provide supporting evidence of their recollections.

In the 40 years which have elapsed since the first records examiners began the enormous task of inventorying the records accumulated since formation of the Union, a Federal archival system has been developed which has a vast store of information about the past for research use, much of it available in regional research facilities as well as in John Russell Pope's columned National Archives Building in Washington. Before turning to the holdings of the National Archives and its satellite installations, however, let us look briefly at what the National Archives has become since it was created forty years ago.

The National Archives is no longer an independent agency. Based on recommendations of the First Hoover Commission,[1] it became the National Archives and Records Service of the newly formed General Services Administration in 1949. The principal reason for its absorption was the developing need for some agency of Government to deal with increasing problems of records management. Paperwork had burgeoned in the Depression years and its expansion in World War II was more like an explosion than growth. The recognition of the need for improved direction in current records management coincided with the Hoover Commission's conviction that a central agency to handle the Government's "general services" was required. Thus, the former National Archives joined GSA as the National Archives and Records Service (NARS) by terms of the Federal Property and Administrative Services Act of 1949. (Public Law 152, June 30, 1949 63 *Stat.* 377) The companion Federal Records Act of 1950 (Public Law 754, Sept. 5, 1950 64 *Stat.*

583) enunciated the increased responsibilities in the field of records management and laid the groundwork for the establishment of regional records centers.

Today the National Archives and Records Service administers a Federal archival system which has 22 institutions: the National Archives in Washington, the Washington National Records Center in nearby Suitland, Maryland, the National Personnel Records Center (with separate buildings for civilian and military records) in St. Louis, Missouri, and 13 regional records centers. Two of the 13, in Dayton, Ohio, and Mechanicsburg, Pennsylvania, do not have branch archives (*i.e.*, original records are not among their holdings). The other 11 do have such branches, are known as Federal Archives and Records Centers, and are located in: Boston, New York City, Philadelphia, Atlanta, Chicago, Kansas City (Missouri), Fort Worth, Denver, San Francisco, Los Angeles, and Seattle. The remaining institutions in the system are Presidential libraries and include the Herbert Hoover Library at West Branch, Iowa, the Franklin D. Roosevelt Library at Hyde Park, New York, the Harry S Truman Library at Independence, Missouri, the Dwight D. Eisenhower Library at Abilene, Kansas, the John F. Kennedy Library at Waltham, Massachusetts (in temporary quarters until the permanent library is built), and the Lyndon B. Johnson Library at Austin, Texas.

In addition to the records center, and archival and Presidential library functions, NARS administers a Government-wide records management program and operates an official "publishing house." The latter is the Office of the Federal Register which publishes the daily *Federal Register*, the *United States Statutes at Large*, the *Code of Federal Regulations*, the *Weekly Compilation of Presidential Documents*, and the annual volumes of *Public Papers of the Presidents*.

NARS holdings total more than 13 million cubic feet of records. (A rule of thumb has it that about 2,500 pages fill a cubic foot of shelf space.) Almost 12 million cubic feet of the total are noncurrent records in the regional centers, most of which will be disposed of when they outlive their usefulness. More than one million cubic feet of records are of enduring value and comprise the body of records known as "the National Archives." Most of the permanently valuable records are in the National Archives Building and the Washington National

Records Center, but the branch archives do have original documents of lasting value which are of specific interest to regional researchers. The branches also have microfilm copies of some of the most important and heavily used records in the National Archives.

Since its beginnings, the National Archives has had jurisdiction over records of the Executive Branch. By arrangements made over the years, it also serves as the depository for the Legislative and Judicial Branches. Each Executive agency is required by law to make and preserve records documenting its structure, procedures, and essential business. The National Archives is the eventual depository for those records of lasting value. Indeed, should an agency cling for more than 50 years to records of sufficient historical or other worth to warrant continued preservation, the GSA Administrator can direct that they be transferred to the National Archives unless the head of the agency concerned certifies in writing that the records must be retained in agency custody for the transaction of current business.

The National Archives counsels agencies to maintain their records of apparent enduring value separately from those which are transitory. It asks that the former be offered for transfer to the National Archives if termination of the agency is imminent or, for continuing agencies, in five year blocs after the most recent records are about 20 years old. Official records of heads of departments may be offered whenever they are no longer needed for current administrative needs. Many records come to the National Archives under various arrangements worked out by the originating agency and the archivists in the light of special circumstances. All items, of course, are subject to archival appraisal to determine if they are, in fact, permanently valuable.

It is not to be imagined that all the records created by the Federal Government find their way into the National Archives. Since the Government is turning out about 20 billion pieces of paper a year now, even the thought of total retention shakes the mind. There are, of course, the whole classes of records which are preserved because they document organization, functions, policies, and important decisions. But perhaps only one to three percent of the total records generated will be found to be worthy of permanent retention. A high proportion of the records

produced are concerned with day-to-day facilitative and fiscal matters and are disposable under General Records Schedules or relate to operating activities documented elsewhere. There is little compunction at their swift demise. Operating records, on the other hand, often require *ad hoc* appraisal to determine if they are significant in themselves or contain valuable information for historical or other research.

The records which are part of the National Archives are organized into about 410 record groups and are preserved, largely, in accordance with the structure of the generating agency. The latest alphabetical list of record groups starts with "Accounts (Treasury), Bureau of" and closes with "Yards and Docks, Bureau of." The various record groups are assigned to custodial units in the Office of the National Archives which perform all basic archival functions for the records under their control. The major divisions, Civil and Military, are organized along functional lines. For instance, the Civil Archives Division has a Diplomatic Branch, a Natural Resources Branch, and an Industrial and Social Branch. The Military Archives Division has a Captured Records Branch, a Modern Military Branch, and an Old Military Branch—the year 1917 being the dividing line between old and new in military records.

Records in the National Archives are by no means limited to textual. The Cartographic Archives Division has 1.5 million maps and charts and some 2 million aerial photographs. These cartographic holdings are augmented by closely related textual records. The Audiovisual Archives Division has some 44,000 reels of motion pictures, 4.5 million still pictures, and about 66.5 thousand sound recordings. Acquisition of audiovisual materials from private as well as Government sources is authorized and has resulted in major donations such as the Ford Historical Film Collection. Just recently, the Columbia Broadcasting System granted to the National Archives a royalty free license to record all CBS news, documentary, public affairs, and special event telecasts in order that copies could be made available to scholars and researchers for study at the National Archives, the branch archives, and the Presidential libraries.

Researchers wishing to use records in the National Archives register with the Central Reference Division which operates the Central Research Room and Microfilm Research Room. In

the branch archives, they register with the archivists who are in charge of those units.

There are numerous finding aids to assist researchers in locating the records that are of interest to them. A new general guide—the first since 1948—is coming off the press this year, entitled, *Guide to the National Archives of the United States.* It describes the record groups constituting the National Archives in the National Archives itself, the Washington National Records Center, and the archives branches. It will be sold by the Superintendent of Documents of the Government Printing Office. There are also other specialized guides such as the *Guide to Cartographic Records in the National Archives* published by GPO in 1971 and the revised *Guide to Materials on Latin America in the National Archives* which is in the press. More than 200 inventories have been published, 30 special lists, 45 reference information papers, and several hundred guides and descriptive pamphlets to microfilm publications. A new overall *Catalog of National Archives Microfilm Publications** is being published and there are select catalogs of microfilm publications, such as the *American Indian* (1972) and *Black Studies* (1973). The current *Select List of Publications of the National Archives and Records Service*, National Archives *General Information Leaflet 3*, describes the various publications available.

As part of its effort to keep researchers apprised in a timely manner of accessions and openings at its various depositories, the National Archives publishes such lists in its quarterly, *Prologue: The Journal of the National Archives.* The lists incidentally, are made available to other scholarly publications. *Prologue*, in addition, carries descriptions of newly declassified records and of recent publications of the National Archives. Printed facsimiles of many historic documents in the National Archives can be obtained. They are described, along with price information, in a pamphlet *Documents from America's Past.*† All titles discussed in the last two paragraphs are printed by the GPO.

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*The last edition was published in 1968 with title *List of National Archives Microfilm Publications.*

†General Information Leaflet No. 13, 1972.

The National Archives also is authorized to provide copies of records not exempt from public examination or protected by copyright. It may provide copies of copyrighted material if authorized by the copyright owner, but will not undertake to obtain such authorization. Fees to cover costs are charged for copies.

More and more researchers have been turning to the archives branches to meet their needs since the National Archives began its policy of sending to the branches microfilm copies of records heavily used in the main building in Washington. Each of the 11 archives branches now has about 10,000 rolls of microfilm from the National Archives—among them last century's records of the Department of State. They also have records of the 1850 census for their areas and are receiving other census records for the entire country for the 19th century. The microfilm is available for inter-institutional loan. The archives branches have lists available of their microfilm holdings. Largest segments of original records in archives branches are those for Federal District and Circuit Courts in their areas.

The Presidential libraries, of course, antedate the archives branches as significant research centers away from Washington. They began with the acceptance for the Government by Congress in 1939 of the Franklin D. Roosevelt Library. Legislation in 1955 provided for the acceptance and maintenance of other Presidential libraries, and the five other Presidential libraries mentioned earlier have since come into the system. These research centers hold, primarily, donated materials—Presidential and related personal papers. The individual libraries provide lists of their holdings.

There have been two fairly recent developments regarding access to records at the National Archives which should be mentioned. One has to do with the 1900 Census of Population and the related Soundex index. They were opened to researchers, with restrictions, last December 3 after intensive negotiations by the General Services Administration and the National Archives and Records Service on one hand, with the Census Bureau and its parent Commerce Department on the other. In respect to genealogy, access has been granted only to officers of courts, persons studying their own families, and others who have permission in writing from a member of the family to be studied. Historians using the records cannot publish names or

other personal identifications, but qualified biographers can do so. The restrictions and conditions regarding access are to be reviewed after a year's experience. Researchers must consult the 1900 Census records at the National Archives; they are not available in the branch archives.

Another development has been the intensified attention given to the declassification of records. One section of Executive Order 11652,' (3A *Code of Federal Regulations*, 1972 comp.) signed by the President on March 8, 1972, provided for the systematic review for declassification by the Archivist of the United States—head of the National Archives and Records Service—of classified material 30 years old. The material could stay classified only if the head of the classifying agency would identify specific information in writing requiring continued protection. Classification review procedures were instituted and a records Declassification Division was established in the National Archives to speed the work. Some 48 million pages of World War II classified material have been declassified by this unit, and, except for a small percentage restricted for other reasons, opened to researchers.

General Services Administration
National Archives and Records Service

National Archives

Address inquiries to:

Central Reference Division
National Archives (GSA)
Washington, DC 20408
Telephone 202-963-6411

Presidential Libraries

For each of the following, address inquiries to the Director.

Herbert Hoover Library
West Branch, IA 52358
Telephone 319-643-5301

Franklin D. Roosevelt Library
Hyde Park, NY 12538
Telephone 914-229-8114

Harry S Truman Library
Independence, MO 64050
Telephone 816-833-1400

Dwight D. Eisenhower Library
Abilene, KS 67410
Telephone 913-263-4751

John F. Kennedy Library
380 Trapelo Rd.
Waltham, MA 02154
Telephone 617-223-7250

Lyndon B. Johnson Library
Austin, TX 78712
Telephone 512-397-5137

Federal Archives and Records Centers

For each of the following, address inquiries to the Federal Archives and Records Center Director.

Atlanta:
1557 St. Joseph Ave.
East Point, GA 30344
Telephone 404-526-7475

Boston:
380 Trapelo Rd.
Waltham, MA 02154
Telephone 617-223-2657

Chicago:
7201 South Leamington Ave.
Chicago, IL 60638
Telephone 312-353-5720

Dayton:
2400 W. Dorothy Lane
Dayton, OH 45439
Telephone 513-461-4830

Denver:
Building 48,
Denver Federal Center
Denver, CO 80225
Telephone 303-234-3187

Fort Worth:
Box 6216
Fort Worth, TX 76115
Telephone 817-334-5515

Kansas City:
2306 East Bannister Rd.
Kansas City, MO 64131
Telephone 816-EM 1-0860
ext. 7271

Los Angeles:
4747 Eastern Ave.
Bell, CA 90201
Telephone 213-268-2548

Mechanicsburg:
Naval Supply Depot,
Bldg. 308
Mechanicsburg, PA 17055
Telephone 717-766-8511
ext. 3477

New York:
641 Washington St.
New York, NY 10014
Telephone 212-620-5757

Philadelphia:
5000 Wissahickon Ave.
Philadelphia, PA 19144
Telephone 215-GE 8-5200
ext. 591

St. Louis:
National Personnel
Records Center
9700 Page Blvd.
St. Louis, MO 63132
Telephone 314-268-7201

San Francisco:
1000 Commodore Dr.
San Bruno, CA 94066
Telephone 415-556-3484

Seattle:
6125 Sand Point Way
Seattle, WA 98115
Telephone 206-442-4500

Washington:
Washington National
Records Center
Washington, DC 20409
Telephone 301-763-7000

Notes

1 U.S. Commission on Organization of the Executive Branch of the Government. Task Force on Records Management, *Report*, Appendix C, p. 8 (Washington. Government Printing Office, 1948).

The Educational Resources Information Center: Its Legal Basis, Organization, Distribution System, Bibliographic Controls

Bernard M. Fry and Eva L. Kiewitt

The Educational Resources Information Center is somewhat different from the other government agencies reviewed in this issue in that it gathers, abstracts, and announces not only government publications in its areas of interest resulting from projects supported by the National Institute of Education, the U.S. Office of Education, and other government agencies with similar interests, but also materials privately sponsored and produced. ERIC Central (headquarters) acquires publications of government agencies. Other materials are gathered by sixteen "clearinghouses" operating under contract to ERIC Central.

The Center is included in this issue since it contains a large number of government publications in a field not covered by other government announcing services, and because its decentralized operation is worthy of study. While it is not directly analogous to ERIC's operation, the marketing of products of the Information Analysis Centers by the National Technical Information Service (see Mr. Thott's paper) is an interesting parallel.

It is encouraging to see the amount of self-study the Educational Resources Information Center has made of its operations.

C. C.—Editor

Purpose and Scope

The Educational Resources Information Center (ERIC) is a national education information system established in 1966 by the U.S. Office of Education, National Center for Educational Communication (NCEC), now sponsored by the National Institute of Education.

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Eva L. Kiewitt is an Assistant Professor in the Graduate Library School, and Librarian, at Indiana University.

The overall goal of the ERIC program is to furnish ready access to the nation's current significant knowledge that can be used in developing more effective educational programs.

From thousands of selected documents that otherwise would be impossible for any single organization or person to locate, ERIC allows educators and others interested in any aspects of education to identify and quickly obtain the reports of exemplary programs, research projects, and evaluative studies.

Through a network of sixteen specialized centers, or clearinghouses,* each of which is responsible for a particular educational area, the information is monitored, acquired, evaluated, abstracted, indexed, listed, and made available through a variety of ERIC products and services. These reference publications and services thus provide access to reports of innovative programs and the most significant efforts in educational research. The ERIC system is capable of making a major contribution to practitioners and researchers alike in terms of helping them to develop a continuously regenerative system.

Students, teachers, researchers, board members, advisory groups, and adminstrators continually function without adequate benefit of pertinent findings—perhaps mostly because of lack of time to "review the literature." Pertinent information concerning the results of research, development, experimentation and evaluation is available in myriad publications of all kinds; however, the typical educator-user cannot hope to find time to collect and analyze such numerous and diverse sources of information directly. His only hope is to rely upon systematic collection and dissemination programs such as ERIC.

For over seven years, ERIC has been providing a service to the educational community. It is a unique, computer-based, educational information system, that has acquired and evaluated over 200,000 documents. Most of these documents have not found their way to the normal publishing channels, such as journals. Approximately 100,000 of these documents are now in the system.

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*See list at the end of this article.

There are presently about 5,000 subscribers to *Research in Education*, the monthly abstract publication of ERIC. Approximately 70 percent of the subscribers are academic libraries. There are over 2,000 subscribers to *Current Index to Journals in Education*, the monthly journal abstract publication of ERIC. About 60 percent of the subscribers are academic libraries. ERIC is the world's largest producer of microfiche, averaging about one million per month. In 1972 ten million microfiche were disseminated throughout the world at over 500 centers. Presently, about 500 organizations purchase the full collection of microfiche, which is somewhere in the neighborhood of 80,000. Of the 500, 63 percent are academic libraries.

Legal Basis and Background

A feasibility study for developing an information service to support the new Media Research Program authorized under Title VII of the National Defense Education Act was conducted by Tauber and Lilley in 1959. A Task Group of program officers in the Office of Education recommended in 1960 that funds be awarded for a pilot operation of an information service. Western Reserve University of Ohio received a grant for the design and pilot operation in 1961.

In 1963 the President's Advisory Committee recommended that agencies "must accept responsibility for the transfer of information in the same degree and spirit that they accept responsibility for research and development itself."[2] Following the reorganization of the U.S. Office of Education in 1965, a Bureau of Research was created and ERIC became a branch within the Division of Research Training and Dissemination. In 1966 the United States Office of Education defined the position of that office with the statement:

> Recognizing that sponsoring research on educational problems is only half the job, the Office of Education has assumed responsibility for transmitting the findings to educators and administrators. To achieve this objective, the Office has developed the Educational Research Information Center—ERIC.[3]

There was a name change in 1967 which substituted the word "resources" for the word "research" in ERIC's title but

the objectives were not altered. The ERIC network of clearinghouses was established in June 1966, and the first issue of the reports index, *Research in Education,* was published in November 1966. This monthly abstract journal includes subject, author, and institutional indexes. This journal covering unpublished reports was followed in 1969 by the production under contract to a major publisher of *Current Index* to *Journals in Education,* a monthly guide to the periodical literature.[4]

In 1968, Lee G. Burchinal, then the Director of the Division of Information Technology and Dissemination, Bureau of Research, U.S. Office of Education, said in a paper presented to the American Management Association:

> Communication in education will remain a many-channeled process involving message exchanges within and among all levels of education, fields or disciplines of specialization, public and private sectors, many professional organizations, and other components included in the American education system. Still, even modest activities can greatly improve educational communication systems.[5]

Thus, it was realized that the ERIC system was not the only answer to educational communication; however, the development of a national educational information network was certainly a major step toward accomplishing this goal.

The ERIC system was established with four major objectives:

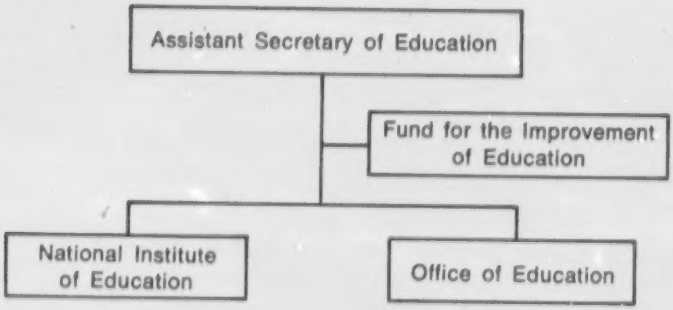
- to make significant, but previously unavailable, R & D reports easily and readily available to educators;
- to interpret and summarize results in ways that educational practitioners and decision-makers can use them;
- to help strengthen existing educational communication channels for putting R & D results to use;
- to become an important base for developing a national educational information network.[6]

The ERIC system became part of the National Institute of Education when NIE was formed July 1, 1973. The Education Amendments Act of 1972 (Public Law 92-318) was signed by

the president on June 23, 1972, and included the establishment of NIE as the research and development arm of a new Education Division within the Department of Health, Education, and Welfare. The new division is headed by a director and co-equal to the U.S. Office of Education which is headed by a commissioner.

The following chart shows the relationship of NIE within the Department of Health, Education, and Welfare:[7]

Department of Health, Education, and Welfare
Education Division


Assistant Secretary of Education
Fund for the Improvement of Education
National Institute of Education
Office of Education

The director of NIE was authorized to "conduct educational research . . . assist and foster such research, collection, dissemination, or training through grants, or technical assistance to, or jointly financed cooperative arrangements with, public or private organizations, institutions, agencies, or individuals . . . promote the coordination of such research and research support within the Federal Government . . . construct or provide for such facilities as he determines may be required to accomplish such purposes." (Public Law 92-318, Sect. 405(e)(1), June 23, 1972)

An appropriation of approximately $550 million was authorized for the three year period of 1972 to 1975 to carry out the functions of the Institute. The actual appropriation for the first year of operation, 1972-73, was reduced by Congress to $75 million from the President's budget request of $125 million.

Organization

ERIC is a decentralized operation and consists of four components: Central ERIC at the NIE headquarters, the network of specialized clearinghouses, a contractor for centralized computer and technical services (the ERIC Facility) and the ERIC Document Reproduction Service.

Central ERIC collects topical and other research reports from projects supported by NIE, the Office of Education, and other federal agencies with education-related research. State Departments of Education, textbook publishers, National Education Association, Association of Educational Communication and Technology, and other organizations associated with education send documents to Central ERIC.

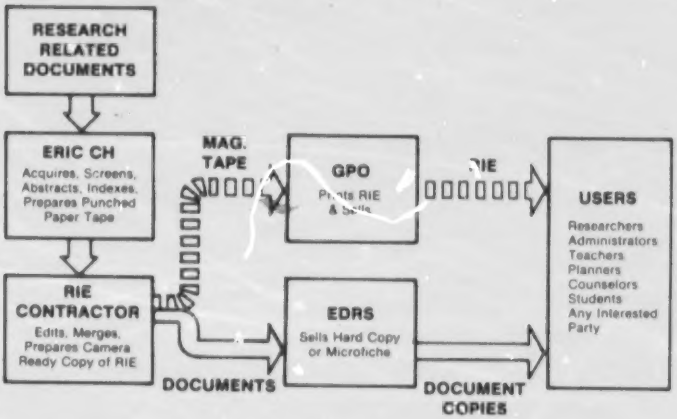
Clearinghouses

Each of the 16 clearinghouses specializes in an area of education, e.g., early childhood, junior colleges, and teacher education. The clearinghouses are usually located near a university campus or with a national professional organization so they will have specialists and well-developed collections of educational materials available. NIE contracts with their institutions or national organizations to become information clearinghouses in the ERIC system. The individual clearinghouses have developed information-gathering networks to acquire documents in their subject area. The documents are then evaluated by the subject specialists for their quality and significance to education. Those selected are abstracted and indexed.

The ERIC Facility, currently operated under contract by the Leasco Systems and Research Corporation, receives the document résumés to be stored on magnetic tape and prepared for incorporation in the monthly RIE.

Individual ERIC documents in either microfiche or hard copy form as well as magnetic tapes are prepared for sale by the ERIC Document Reproduction Service (EDRS).

The following documents flowchart illustrates the operation of the ERIC components.[8]



Distribution System

The products of the ERIC system include the indexes, copies of the documents, and clearinghouse publications. The two monthly indexes are the primary means of dissemination and both are available in hard copy and on magnetic tapes. *Research in Education* abstracts the major educational reports and adds approximately 1,000 reports on microfiche cards each month. The microfiche sets are available in many university and public libraries and in information centers. They may also be purchased individually in microfiche or hard copy form. *Current Index to Journals in Education* currently covers 700 educational and education-oriented publications. Annotations which briefly describe the article are included with each main entry in the Title index. There are also subject and author indexes.

There are also indexes to some special collections related to those documents indexed in *Research in Education.* These are *Office of Education Research Reports, 1956–65, Pacesetters in Innovation* fiscal years, 1966–68, *Selected Documents on the Disadvantaged, Selected Documents in Higher Education,* and *Manpower Research,* fiscal years 1966–69, all available from ERIC Document Reproduction Service.

Evaluation of the ERIC System

In 1972 the author (Fry) examined the use made of ERIC products and services by members of the educational community, and in this context evaluated the extent to which the ERIC system is achieving its objectives. This user response study demonstrated that, in spite of microfiche difficulties, nearly 10 million fiche are used and found very useful every year.

The Fry study lists the major reasons for non-use as: 1) unawareness of the system; 2) delays and costs of document delivery; 3) non-acceptance of microfiche; 4) lack of subject coverage in some areas; 5) practitioner rather than researcher orientation.[9]

Wanger directed a study to evaluate the quality and utility of NCEC information analysis products, including the ERIC clearinghouse products. Two surveys were conducted including a broad cross-section of educators and specialists. As a result of the findings, Wanger recommended that:

1 an improved alerting or announcement system—perhaps even a selective dissemination of information (SDI) system—needs to be developed

2 the product delivery system needs to be improved and/or an intensified education program of how to obtain products needs to be developed.[10]

As the ERIC magnetic tapes became available, computer searches emerged as an important part of the distribution system. The need for expansion of machine searching, as recommended by some of the ERIC evaluations, caused some of the information centers to experiment with either batch-mode or on-line methods of disseminating information to their patrons. Results showed that both methods were needed in certain circumstances.

A computer information retrieval program, QUERY, was developed in 1969 under the auspices of the U.S. Office of Education for state and local educational agencies and select

USOE installations. However, QUERY was found to be uneconomical due to limited capacity of the IBM System 360/30, with its extreme slowness of operation and its inability to perform complex search specifications. Thus, information centers began to develop local retrieval computer programs. The need for developing retrieval software packages grew as the use of the ERIC tapes expanded. By July 1, 1972, 78 U.S. centers or libraries were receiving standing orders of the ERIC tapes and 10 foreign centers were ordering them. Of these 88 recipients, 32 were universities and colleges. Several retrieval programs have been developed at information centers. For example, DATE-LINE is a computer search program for the ERIC tapes developed by North Dakota Resource Information Center and made available to the State Educational Agencies in Iowa, Kansas, Massachusetts, and Texas.[11] Some other computer programs which have been developed to search the ERIC date base are: OBIAS, Oregon Total Information System;[12] EQUIP, South Carolina State Department of Education;[13] MQUERY, University of Iowa;[14] STRC, North Carolina Science and Technology Research Center;[15] TEXT-PAC, University of Calgary;[16] GIPSY, Oklahoma University;[17] INFORMS, Iowa State Department of Public Instruction;[18] PROBE, Indiana University;[19] and a program at the Information Retrieval Center in Boulder, Colorado.[20] An on-line retrieval system (DIALOG) was developed by Lockheed and tested by the ERIC Clearinghouse on Educational Media and Technology at Stanford University and the Region IX Office of USOE at San Francisco.[21]

Evaluation of Clearinghouses

The clearinghouses issue newsletters, bulletins, and bibliographies as well as gather, abstract, and index information in their specialized subject area. Stanton studied 17 of the clearinghouse newsletters to determine their effectiveness as judged by the recipients. She found the recipients relied on the newsletters to reduce their dependence on other sources for references to educational research and research-related materials both for the depth of coverage and for the quantity of ERIC documents listed and the number of reviews included. Those involved in teaching or administration emphasized the newsletters' potential for infusing educational information into educational plans and programs.[22]

The number of clearinghouses has varied from 12 to 20, with a current total of 16. Recently Adult Education has merged with Vocational and Technical Education to form Career Education. The scope of the ERIC Clearinghouse on Library and Information Sciences (ERIC/CLIS), operated by the American Society for Information Science (ASIS), was merged with that of the ERIC Clearinghouse on Educational Media and Technology (ERIC/EM) at Stanford University to form the ERIC Clearinghouse on Information Resources (ERIC/IR). The merger became effective 1 January 1974. The new Clearinghouse covers the combined subject areas of library/information science and educational media/technology.

In addition to the above means of dissemination there are regular columns in professional journals, brochures and audiovisual materials that have been developed; professional organizations keep in close communication with the clearinghouses, state and local agencies furnish information, and there is personal contact with other users.

Bibliographic Controls

Besides the input received by Central ERIC from government sources and professional organizations, each clearinghouse developed its own network to acquire educational information. Universities, specialized professional organizations, and outstanding leaders in the field are contacted regularly to obtain current materials for evaluation and inclusion in the system.

Each clearinghouse evaluates and determines what material will be included in their subject speciality. These reports are then abstracted and indexed by the selection of terms from the *Thesaurus of ERIC Descriptors*[23] for inclusion in *RIE* or *CIJE*. Index terms are divided into two types: descriptors and identifiers. Descriptors form the controlled hierarchical structured vocabulary; whereas, the identifiers include highly specific terms, such as personal names or geographic locations. The *Rules of Thesaurus Preparation*[24] give the indexers aid in selecting appropriate terms to describe the documents. Procedures have been established for change and growth in the thesaurus terms. There is an ERIC Vocabulary Review Group composed of a broad-based committee to recommend

changes, additions, or deletions in the thesaurus to be considered by the Thesaurus Advisory Panel. On page 74 is a flowchart of the change procedure for vocabulary review.[25]

System Problems

The adequacy of the ERIC system has been studied and will continue to need reevaluation.

In 1968, Burchinal evaluated the first two years of ERIC's development. He found significant progress toward the four goals stated earlier.[26]

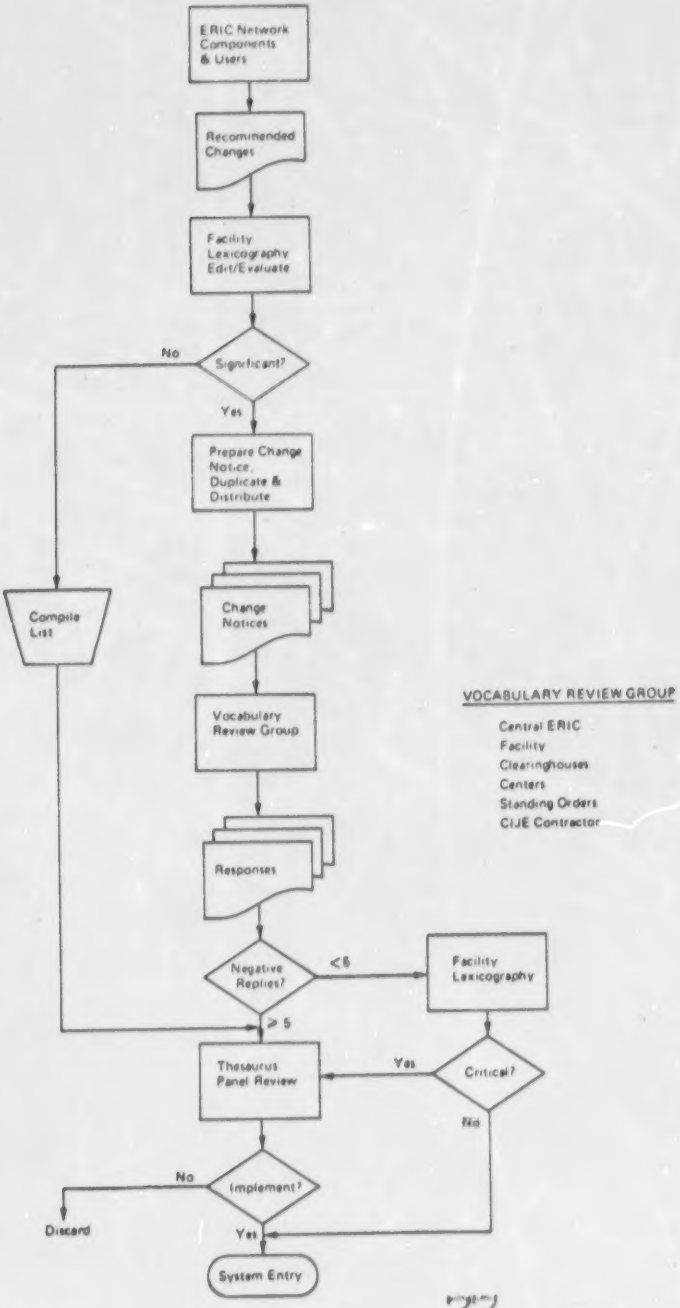
Paisley examined the ERIC system in 1971 and concluded that it had succeeded in two of its three important missions. First, it had been successful in collecting, abstracting, indexing, and making available the significant literature of the field of education; and second, it had prepared reviews and syntheses to place such literature in perspective. In respect to the third mission, however, the system needed to be more effective in bringing the ERIC knowledge base to the attention of practitioners, so that educational practice might catch up with its own best exemplars.[27]

The National Center for Educational Communication (NCEC) contracted with the Rand Corporation to develop objectives and structures for the ERIC system in 1971. The Rand team conducted a five-month investigation and suggested alternative models for the ERIC clearinghouse network. In their summary, they suggested the need for ERIC to be more responsive to the educational community and emphasized the following problem:

> One of the most compelling problems facing all clearinghouse directors is to determine who the actual users of ERIC are, what their needs will be, and how well ERIC is satisfying those needs.[28]

Even though ERIC is a gigantic and powerful bibliographic service with a successful machine-readable data base, there are major problems to be resolved. Smith enumerated problems as seen by a clearinghouse director which were the concentration in microfiche, users' lack of knowledge about the ERIC system, dependence upon fluctuation of federal

THESAURUS CHANGE PROCEDURE



VOCABULARY REVIEW GROUP

- Central ERIC
- Facility
- Clearinghouses
- Centers
- Standing Orders
- CIJE Contractor

funds, size of the system, lack of librarians' involvement, and marketing the products and services.[9]

Overall, the problems concern the adequacy of the coverage, quality of information included, the indexing consistency and the vocabulary, dissemination, and involvement of users. Wright discussed some of these criticisms in relation to the general characteristics and problems of social science information storage and retrieval. In general, he endorsed the two principal critical recommendations of the Fry study concerning: a) the centralization and increased technical competence of the indexing and abstracting services; and b) that the clearinghouses spend more time as dissemination links with local and state users of the ERIC system.[10]

ERIC Clearinghouses

Career Education
Northern Illinois University
DeKalb, Illinois 60115

Counseling and Personnel Services
University of Michigan
School of Education Building, Room 2108
East University &
South University Sts.
Ann Arbor, Mich. 48104

Disadvantaged
Teachers College
Columbia University
1258 Amsterdam Ave., Box 40
New York, N.Y. 10027

Early Childhood Education
University of Illinois
805 W. Pennsylvania Ave.
Urbana, Ill. 61801

Educational Management
University of Oregon
Eugene, Oreg. 97403

Exceptional Children
The Council for Exceptional Children
Jefferson Plaza No. 1,
Suite 900
1411 South Jefferson Davis Highway
Arlington, Va. 22202

Higher Education
George Washington University
One Dupont Circle, N.W.
Suite 630
Washington, D.C. 20036

Information Resources
Stanford Center for Research & Development in Teaching
Stanford, California 94305

Junior Colleges
University of California
at Los Angeles
Powell Library, Room 96
405 Hilgard Ave.
Los Angeles, Calif. 90024

Languages and Linguistics
Modern Language
Association of America
62 Fifth Ave.
New York, N.Y. 10011

Reading and Communication Skills
National Council of Teachers
of English
1111 Kenyon Road
Urbana, Ill. 61801

Rural Education and Small Schools
New Mexico State University
Box 3 AP
Las Cruces, N.M. 88003

Science, Mathematics, and Environmental Education
Ohio State University
400 Lincoln Tower
Columbus, Ohio 43210

Social Studies/Social Science Education
Social Science Education
Consortium, Inc.
855 Broadway
Boulder, Colo. 80302

Teacher Education
American Association of
Colleges for Teacher
Education
One Dupont Circle, N.W.
Suite 616
Washington, D.C. 20036

Tests, Measurement, and Evaluation
Educational Testing Service
Princeton, N.J. 08540

Notes

1 M. F. Tauber, and O. L. Lilley, Feasibility Study *Regarding the Establishment of an Educational Media Information Service*, [Official Education Contract SAE-8328], (New York: Columbia University School of Library Services, 1960).

2 President's Science Advisory Committee, *Science, Government, and Information: The Responsibilities of the Technical Community and the Government in the Transfer of Information* (Washington, D.C.: Government Printing Office, 1963), p. 1.

3 U.S. Department of Health, Education, and Welfare, *ERIC, A National Information System Dedicated to the Progress of Education through the Dissemination of Educational Research Results and Research-Related Materials* [U.S. Office of Education, OE 12022-66], (Washington, D.C.: Government Printing Office, 1966), p. 1.

4 Lee G. Burchinal, *ERIC Development Through June, 1968*, [ERIC Document ED 020 450], (Washington, D.C.: U.S. Office of Education, 1968), Appendix A, p. 1–3.

5 Lee G. Burchinal, *Information Retrieval for Education and Training*, [ERIC Document ED 017 748], (Washington, D.C.: U.S. Office of Education, 1968), p. 2.

6 Lee G. Burchinal, *Evaluation of ERIC, June 1968*, [ERIC Document ED 020 449], (Washington, D.C.: U.S. Office of Education, 1968), p. 4.

7 U.S. Congress, House, Committee on Appropriations, *Departments of Labor and Health, Education and Welfare Appropriations for 1974*, Hearings, 93d Congress, 1st sess., pt 2, 1973, p. 10.

8 Harvey Marron, "ERIC: A National Network to Disseminate Educational Information" *Special Libraries*, December 1968, p. 777.

9 Bernard M. Fry, *Evaluation Study of ERIC Products and Services, Final Report*, [ERIC Documents ED 060 923, ED 060 924, ED 060 925, Ed 060 926], 4 vols. (Bloomington, Indiana: Indiana University, 1972).

10 Judith Wanger, *Evaluation Study of NCEC Information Analysis Products*, [ERIC Documents Ed 064 527, ED 064 528], 2 vols., (Falls Church, Virginia: System Development Corporation, 1972), p. II–10.

11 Edward Krahmer and Kent Horne, *An Alternative to QUERY: Batch-Searching of the ERIC Information Collections*, [ERIC Document ED 063 519], (Grand Forks, North Dakota: Resource Information Center, 1972), 55 pp.

12 Paula Bracken, OTIS Basic Index Access System (OBIAS): *A System for Retrieval or Information from the ERIC and CIJE Data Bases Utilizing a Direct Access Inverted Index of Descriptors and a Reformatted Direct Access ERIC-CIJE File*, [ERIC Document, ED 061 979], (Eugene, Oregon: Oregon Total Information System, 1972), 18 pp.

13 A. D. Link, EQUIP—*A Requestor-to-System CAI Interface with a Batch Processing Automated Information Retrieval System*, (Columbia, South Carolina: State Department of Education, [1972]), 24 pp.

14 Bruce Hemminger, *Automated Search of the ERIC Files*, [ERIC Document ED 066 209], (Iowa City: University of Iowa, University Computer Center, 1972), 18 pp.

15 Mary Ann Williamson, *A Brief Description of the STRC Inverted Search System (STRC-IVS)*, (Research Triangle Park, North Carolina: North Carolina Science and Technology Research Center, [1972]), 15 pp.

16 Oldrich Standers, *The ERIC Data Base Usage at the University of Calgary*, (Calgary, Canada: Information Systems and Services Division, [1972]), 5 pp.

17 G. T. Kowitz, *General Information Processing System: The GIPSY/ERIC Abstract Retrieval System*, [ERIC Document ED 047 763], (Norman, Oklahoma: Oklahoma University, 1971), 89 pp.

18 Mary Jo Bruett, Kathy Borlin, and R. L. Carey, *Iowa Network for Obtaining Resource Materials for Schools (INFORMS)*, (Des Moines, Iowa: Iowa State Department of Public Instruction, [1972], 148 pp.

19 Eva L. Kiewitt, "PROBE: Computer Searches of the ERICTAPES—An Evaluation of a Pilot Study" (Ph.D. dissertation, Indiana University, 1973).

20 W. H. McCleary, *Information Retrieval Center of the Northern Colorado Educational Board of Cooperative Services, Final Report*, [ERIC Document ED 067 134], (Boulder, Colorado: 1972), 161 pp.

21 R. K. Summit, *ERIC Online Retrieval System. Use of the DIALOG Online Information Retrieval System with ERIC Research in Education Files, Final Report* [ERIC Document ED 040 592], (Palo Alto, California: Lockheed Aircraft Corp., 1970), 58 pp.

22 Vida Cummins Stanton, "ERIC Newsletters: Their Content, Uses and Users" (Ph.D. dissertation, Indiana University, 1972).

23 *Thesaurus of ERIC Descriptors* (New York: CCM Information Corporation, 1972).

24 U.S. Office of Education, *Rules for Thesaurus Preparation* [OE-12047], (Washington, D.C.: Government Printing Office, 1969).

25 *ERIC Vocabulary Improvement Program* (Bethesda, Maryland: ERIC Processing and Reference Facility, September, 1973), 4A.

26 Burchinal, *Evaluation of ERIC*.

27 W. J. Paisley, "Improving a Field-Based 'ERIC-Like' Information System," *Journal of the American Society for Information Science* 22 (November-December, 1971).

28 Wanger, *Evaluation Study of NCEC*.

29 Joshua I. Smith, "The Application of Ideas of Management, Instruction and Technology in Special Projects in the Academic Library," *Lacuny Journal*, 2 (Spring, 1973), pp. 1–2.

30 Kieth Wright, "Social Science Information Characteristics with Particular Reference to the Educational Resources Information Centers (ERIC)," *Journal of the American Society for Information Science* 24 (May-June, 1973), p. 193-204

The Monthly Catalog and Bibliographical Control of U.S. Government Publications

LeRoy C. Schwarzkopf

The first part of Mr. Schwarzkopf's paper shows the historical development of the present *Monthly Catalog* and is interesting because it shows we have always had an attempt at bibliographical control of government publications. Despite its flaws Poore's *Descriptive Catalog* is a monumental work. Poore's more ambitious plans for his work were dashed by the Congress's after-thoughts about costs. Later, in a more expansive mood, the Congress gave funds for the *Monthly Catalogue* (the spelling had not then been modernized) and the *Documents Catalogue* an action not likely to become a habit.

It's interesting also to note the changes in the *Monthly Catalog* over the years, reflecting varying thoughts about its purpose and the type of information needed by its users. It need not return to being also a newsletter (as Mr. Schwarzkopf indicates it once was), still some comment would have been helpful in the January 1973 issue about the continuation of the 1972 *Catalog* entry numbers (normally the entry numbers begin anew each year) or in the January 1974 issue about the separation of the indexes into three separate ones. The *Monthly Catalog* might to good purpose refer to *Government Reports Announcements* as an additional general bibliographical source.

Mr. Schwarzkopf's analysis of the January-November 1973 issues (the December issue had not yet been published) is quite informative and points up the unevenness of coverage. The *Monthly Catalog* has always been an unknown quantity. Do we expect to find therein, as an example, the translations of the Joint Publications Research Service or do we look to *Government Reports Announcements* to note them? The translations are government publications and the *Monthly Catalog* is fulfilling its legal obligation to index them when furnished for listing. Still, a confusing bibliographic picture emerges.

I agree with Mr. Schwarzkopf that a merger of the *Monthly Catalog* and *Government Reports Announcements* is unthinkable. We might want, though, to seek some definition of their respective roles through changes in the wording of the law or through interpretative regulation by the Joint Committee on Printing.

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The Subcommittee on Documents Office Informational Tools has recommended a number of changes in the *Monthly Catalog* to the Advisory Council to the Public Printer on Depository Libraries. Among them are: use of International Standard Book Numbers instead of Government Printing Office stock numbers (for use with international control systems); expansion of the personal "Author Index" to include up to two personal authors, translators, commission chairmen, and the like (only one author is now indexed); a cumulated thesaurus, available to depository libraries; adequate cross references, and citation of titles on a consistent basis; provision for an accession number index (cross reference from Superintendent of Document classification number to stock number and stock number to classification number (or ISBN, if adopted); cumulation annually of the listings, monthly of the indexes. These recommendations will be studied by the Advisory Council in preparation for its July meeting.

As this issue goes to press, it is noted that the symbols used in the March issue of the *Monthly Catalog* to denote availability have been changed from those given in Mr. Schwarzkopf's paper. This is a further step in the process of computerizing the *Monthly Catalog*.

C.C.—Editor

The *Monthly Catalog of United States Government Publications* (usually referred to by its short title of *Monthly Catalog*) is considered to be the national bibliography of United States government publications. What constitutes a "government publication" has long been a matter of dispute. Many librarians accept the definition applicable to the depository library program that a "Government publication . . . means informational matter which is published as an individual document at Government expense, or as required by law." (44 *U.S.C.* 1901) This definition has been modified by exempting those publications . . . . determined by their issuing components to be required for official use only or for strictly administrative or operational purposes which have no public interest or educational value and publications classified for reasons of national security . . ." (44 *U.S.C.* 902) The Superintendent of Documents has long taken the position that a government publication must bear the imprint of the Government Printing Office (GPO) or a federal government agency.[1] Thus, a large category of publications produced at government expense—the government sponsored contractor prepared research and development reports—has frequently been eliminated from listing in GPO catalogs. The *Government Reports Announcements* (GRA) and its companion *Index* have come to be considered as the national bibliography of United States government technical report literature.

History and Description of the Monthly Catalog

The national bibliographical apparatus for the cataloging and indexing of United States government publications was established by the General Printing Act of January 12, 1895 (28 *Stat.* 611). Although, for over thirty years, most of its provisions have not been complied with, it is still the law of the land. (44 *U.S.C.* 1710, 1711) It directed the Superintendent of Documents to prepare three indexes or catalogs: a "comprehensive index of public documents" to be published at the close of each regular session of Congress; a "consolidated index of Congressional documents;" and "on the first day of each month . . . a catalog of Government publications which shall show the documents printed during the preceding month, where obtainable, and the price."

The "comprehensive index" became the highly regarded *Document Catalogue* whose 25 volumes included documents published during the 53d through the 76th Congress, 1893–1940. The first volume covered the entire 53d Congress to quickly close the gap between the terminating point of John Ames's *Comprehensive Index to the Publications of the United States Government, 1889–1893*. Ames revised this index in 1905 to cover the years, 1881–1893 and close the gap with Benjamin Perley Poore's *Descriptive Catalogue of the Government Publications of the United States, September 5, 1774–March 4, 1881*. The next two volumes of the *Document Catalogue* each covered one session of the 54th Congress in compliance with the law. Starting with the 55th Congress, the Superintendent of Documents received approval of the Joint Committee on Printing to publish the catalogue biennially covering the period of a full Congress, and to include publications of other government agencies for two fiscal years.[2] This was changed to two calendar years starting with the 74th Congress, 1935–1936.

The timeliness of the publication was adversely affected by the two World Wars. Following World War I, the catalogue was not brought up to date until the early 1930's. It fell far behind again with the expansion of the federal bureaucracy during the Great Depression and the advent of World War II. The last volume covered the period of the 76th Congress, 1939–1940 and was not published until 1947. Permission was granted by

the Joint Committee on Printing in 1947 to discontinue the *Document Catalogue* due to the large amount of duplication with the Monthly Catalog.[3] Three supplementary issues of the *Monthly Catalog* listing material intended for the *Document Catalogue*, but omitted from the *Monthly Catalog*, were issued for the periods 1941–1942, 1943–1944, and 1945–1946. The Committee considered the expanded *Monthly Catalog* as fulfilling the requirements of the law for a "comprehensive index". However, the law has not been changed to reflect these deviations.

The "consolidated index of Congressional publications" became the *Document Index* covering the reports and documents of the 54th through the 72d Congress, 1895–1933. The purpose of this index was to consolidate the six separate indexes of the six series of publications which then comprised the Congressional Serial Set—Reports, Executive Documents, and Miscellaneous Documents for each house in each session. However, the two series of Documents were combined into one series for each house at the start of the 54th Congress. Previously, a copy of the index was bound with every volume in that series thereby delaying publication until all volumes of a series were ready for printing and the index complete.[4] The *Document Index* was discontinued in 1933 as an economy measure. The indexing was duplicated in the *Document Catalogue* which was then up to date. However, the *Document Index* also contained a numerical list of the reports and documents with the title and serial set number in which they were bound, together with a schedule of the volumes of the Serial Set for that session which showed which reports were bound in a particular volume. Since this information was not contained in the *Document Catalogue* or *Monthly Catalog*, the emasculated publication without the index was continued as the *Numerical Lists and Schedule of Volumes*.

Of the three indexes or catalogs of our national bibliography required by law only the *Monthly Catalog* remains. The hearings[5] and reports[6] on the bills which became the General Printing Act of 1895 indicate that the major concern was with the "comprehensive" and "consolidated" indexes, and suggest that what became the *Monthly Catalog* was an afterthought to aid the newly authorized sales program of the Superintendent of Documents.

The *Monthly Catalog* established its distinctive character early and has witnessed relatively few major changes over the years.

Inside the cover of the *Monthly Catalog* will be found two items: explanations of distribution symbols; and sizes of publications. Information on the sizes of publications was added in September 1964. The distribution symbols which first appeared on the cover in January 1940 were previously listed after the abbreviations. Five distribution symbols are now used. The familiar asterisk (*) first appeared in December 1897, with the explanation "Documents for sale by Superintendent of Documents." During the period July 1922 to December 1939, a very useful note was added which is still valid: "Nearly all Departments of the Government make a limited free distribution of their publications. When an entry shows a price (*) it is possible that upon application to the issuing office, a copy may be obtained without charge." In January 1940, the explanation was changed to, "For sale by Superintendent of Documents." The familiar dagger (†) first appeared in July 1907 with the explanation "Distribution by office issuing document, free if unaccompanied by price." In 1946 the current explanation was adopted: "Distribution made by Issuing Office. Not definitely available if unaccompanied by price." The double dagger symbol (‡) was adopted in July 1908 following a short lived 12 months policy of not listing publications which were not obtainable. The explanation was changed in July 1923 from "Document not obtainable" to "Printed for official use." In January 1940 the phrase "Not available for distribution," was added. The explanation was changed in October 1973 to "Not available for sale or distribution."

The black dot (•) with the explanation, "Sent to Depository Libraries," was added in November 1942 due to the discontinuance of the Monthly Invoice of depository shipments. The depository item number was also included. Superintendent of Documents classification numbers have been included since July 1924 for each entry. The black dot symbol appeared at the bottom of every page in the listings, and it was not until November 1953 that all symbols were shown on the bottom of two facing pages in the listings. The farad symbol (Φ) first appeared in November 1955 with the explanation "For sale by Office of Technical Services." The two subsequent changes

were due to changes in the name of the agency: in January 1965 to Clearinghouse for Federal Scientific and Technical Information, and in November 1970 to the present National Technical Information Service.

The *Monthly Catalog* has contained a Table of Contents throughout most of its history, the main variation being whether this included a list of government authors, which it did from January 1896 to December 1905, and again from July 1926 to July 1939. Since August 1939, a separate list of government authors has been published which is referred to in the Table. The list was arranged alphabetically until August 1947. The present classified list was adopted in October 1947. The list of "New Classification Numbers" was added in November 1942 when the Monthly Invoice was discontinued. The list has associated with it a listing of discontinued series, and corrections to previous entries in the catalog. Throughout most of its history, the *Monthly Catalog* has contained a list of abbreviations and general information on the use of the catalog. Library of Congress (LC) card numbers, if available, have been listed since 1906.

The *Monthly Catalog* contained one valuable bonus feature during two periods of its history: "Notes of General Interest," which appeared from July 1907 to August 1917, and again from July 1934 to July 1947. During the earlier period it was a veritable monthly newsletter, usually 4-5 pages with valuable information on new publications being released or planned, on significant publication series or older documents, and on the administration of the depository library system or documents collections. During the latter period the notes were limited to one or two pages, and by 1945 had degenerated to a mere listing of notes on changes in government authors. These notes are now included under the author in the main listings.

The present *Monthly Catalog* has two regular supplements: the "Directory of United States Government Periodicals and Subscription Publications" which appears annually in the February issue; and the "List of Depository Libraries" which appears annually in the September issue. Starting in January 1945, periodicals were listed semi-annually in the January and July issues. They had previously been listed every month. With

the July 1950 issue periodicals were removed from the main listing and included in a separate appendix which used the same arrangement as the main listings. In 1953 the schedule of the semi-annual listings was changed to the February and August issues. In 1962, the listings adopted their present arrangement (alphabetically by title), and the annual schedule. The present appendix which lists depository libraries first appeared in the September 1953 issue. However, monthly issues from July 1898 to May 1899 contained such a list, and shipments to depository libraries were listed each month from April 1900 to December 1905.

The *Monthly Catalog* adopted continuous pagination in 1898 which was continued through 1948, with the few exceptions when there was no annual index. Starting in September 1947, the present practice of numbering each entry serially during the year was adopted. Volumes were bound by calendar year through 1905. Fiscal year volumes were published from 1906/07 to 1933/34 to conform to *Document Catalogue* practice. An 18 month volume, January 1906 to June 1907, accompanied this change. With the change in date of convening for Congress, both the *Monthly Catalog* and *Document Catalogue* changed to calendar year in 1934. A six month volume, July-December 1934 marked this change.

Two main factors have affected the use of the *Monthly Catalog* throughout its history: the method of listing publications, and the availability of an index to the listings. The listings have been single entry by government author, except for a brief period from July 1907 to June 1908 when a subject listing was used. In the first issue, the Superintendent of Documents explained why listing by government author was used in preference to a dictionary catalog, and for the absence of an index at first. The *Monthly Catalog* was seen as an "ephemeral" publication, a current announcement service designed primarily for the public (rather than librarians) to inform them of new publications and where they could be obtained (preferably by purchase from GPO). The *Document Catalogue* was intended to be the permanent bibliography and provide the index for entries in the *Monthly Catalog*.[7]

The listings by authors were first grouped and arranged in the following order until December 1905: Congress, President,

Executive Departments, Judiciary, and Miscellaneous Bureaus. Subdivisions of major departments were listed under that department. From January 1906 to June 1907, all authors using inverted entries, including Congressional committees, were listed alphabetically. Following the major change to a subject listing in July 1907, the Superintendent of Documents remarked that the change "was received . . . with scarcely a word of either condemnation or praise. It would have been much more satisfactory to this office had it received several hundred complaints."[8] However, the change was quickly abandoned in July 1908 with a "return to the old and preferred form" of an alphabetical listing by major departments which was continued until August 1948.[9] Subdivisions, such as bureaus, offices, etc. were listed under the major department. The present arrangement, alphabetical by author (except that Congressional committees are listed under Congress) was adopted in September 1947 at the recommendation of the long time chairman of the ALA Public Documents Committee (PDC), Jerome K. Wilcox.[10]

Major criticism of the *Monthly Catalog* over the years has been directed at its index, or lack of it, especially the cumulations. Monthly indexes first appeared in December 1897. The first cumulations appeared in 1900 with semi-annual and annual cumulations appearing through 1905. During the period of two brief changes in arrangement of the listings from January 1906 to June 1908, the index was abandoned. The monthly index with annual cumulation reappeared in FY 1908/09. In FY 1909/10 and 1910/11 there were quarterly cumulations and an annual index, which was reduced to semi-annual and annual cumulations in FY 1911/12. Starting with FY 1912/13, only an annual index was provided which was published separately. The monthly index was finally resumed in July 1945, and in 1950 the present practice of including the annual index in the December issue was adopted. Decennial cumulative indexes were also published covering the periods 1941–1950, and 1951–1960.

The inversion of author entry arouses occasional criticism. It is unlike Library of Congress practice which is to use the direct entry, or official title of the agency. The use of inverted entries began in 1896 and continues to this day. The Superintendent of Documents justified this practice on several grounds: direct entries result in a number of entries starting with bureau,

department, committee, office, etc. with the significant word buried out of easy sight; the legal title is often difficult to determine, and is not always used by the agency itself; and the inverted form is popularly used in conversation, official and unofficial documents in lieu of the legal form.[11]

The study by Wilcox in 1947 resulted in several other significant changes which are now taken for granted regarding the listing of publications by title or series all in one alphabet. Previously subject subheads had been used since July 1914 if the first word of the title was not a key word. These header key words were printed in italics. Publications in series were entered alphabetically by the title or subject subhead together with separates, rather than under a heading for the series title.

Analysis of Listings in the Monthly Catalog

Looking next at the main listings, what types of publications are, or are not included in the *Monthly Catalog*? An analysis was made of 16,770 titles entered in the January to November issues for 1973, based on distribution symbols assigned to each. This figure is higher than the entry numbers assigned since frequently only one entry number is used when several parts of a publication are listed. A much larger number of pieces are represented by this figure, since serials are listed only once annually and may account for over 250 issues for a daily serial.

One of the main purposes of the *Monthly Catalog* is to catalog and index the publications printed by, or under contract to GPO, and/or distributed to depository libraries (to include selected non-GPO depository items). Yet not all depository pieces, titles, or series are listed in the *Monthly Catalog*. The main exceptions are: Congressional bills and resolutions; federal specifications and standards; Army regulations; and Supreme Court slip opinions. Bills and resolutions are listed and indexed in the *Congressional Record*. A separate annual index is published for federal specifications and standards. Army regulations are listed and indexed in Department of the Army (DA) Pamphlet 310–1. Although DA Pamphlets are a depository item, the Army considers the Index to be "for administrative use" only and will not allow distribution to

depositories. Supreme Court slip opinions are subsequently republished in *U.S. Reports*. However, there is no officially published index or digest to the series, and libraries must purchase the digest to the *Supreme Court Reporter* or *Lawyers Edition*. Many of the advance (or slip) opinions of administrative and regulatory agencies and special federal courts were previously listed and indexed in the *Monthly Catalog*.

Of the total number of titles, 66% were depository items. The following breakdown was made of these depository items based on their distribution symbols: sold by GPO—38%; distributed by the issuing agency, presumably free—23%; sold by the issuing agency—2%; not available for distribution or sale—2%; and less than 1% each were depository only (56 titles) or depository items sold by NTIS (9 titles). Of the depository items which could be otherwise obtained only by purchase from the issuing agency, publications of the Bureau of the Census represent 73% of these, with 55% of the total being *Current Industrial Reports* which are a non-GPO depository item, that is, not printed by GPO. The only other significant issuing agency was the Hydrographic Center whose publications accounted for 8% in this category. Most of the publications in the "Depository—Not Available" category were issued by Department of Defense agencies: 52% of these were Military Standards and another 42% were miscellaneous Army, Navy, or Air Force series. The 56 titles indicated as "Depository Only" were Congressional Serial Set publications. The 9 depository titles listed as "Sold by NTIS" included 4 NOAA Technical Memoranda.

The remaining 34% of the titles were non-depository items broken down as follows: distributed by issuing agency—15%; sold by issuing agency—2%; sold by NTIS—8%; sold by GPO—3%; and not available for sale or distribution—6%. Of the titles sold by the issuing agency, four agencies accounted for the bulk of these: General Accounting Office, primarily with its investigative reports to Congress—41%; Environmental Data Service, primarily with climatological data reports—26%; Army Corps of Engineers—16%; and Library of Congress—9%. The GAO reports are, however, free to the press, and to college libraries, faculty, and students. Over two-thirds of the titles for sale by NTIS were accounted for by three authors: Joint Publications Research Service translations—36%; Atomic Energy Commission technical reports—17%; and National

Aeronautics and Space Administration Technical reports—16%. The list of non-depository titles sold (and presumably printed) by GPO includes a large variety and number of authors and series. Only two items represented significant amounts: preprints of the *Minerals Yearbook* accounted for 42%, and Congressional committee prints for another 13%. The *Minerals Yearbook* is a depository item, so depositories eventually receive this material. Another sizeable category in this group were the interim or advance sheets of decisions and opinions of administrative and regulatory agencies, and courts. These materials are subsequently republished in bound volumes which are available as depository items. The subject of committee prints which are printed by GPO, but are not furnished as depository items has been a matter of concern for some years. The Committees usually consider this category of publications to be "administrative" and therefore exempt from depository distribution. The main value of membership in the Documents Expediting Project (DocEx), whose primary purpose is to collect and disseminate non-GPO items, is that it distributes to its members most of these committee prints which are GPO items. Most of the remaining titles sold by GPO were charts, posters, and forms such as the commemorative stamp posters.

Publications in the "Not Available" category represent a large number of authors and a wide variety of publication series. Only three groups account for a significant amount of this total: Army Corps of Engineers—24%; committee prints —9%; and Army Air Mobility Research and Development Laboratory technical reports—4%. Publications in the "Not Available" category represent 8% of the total, or 6% if the depository items are deleted. This would fail to support the contention that there is a sinister plot to withhold government publications from depository libraries based on an increase in this category of listings in the *Monthly Catalog*, from 6.6% in 1968 to 14.4% in 1969.[12] However, a change in definition for this symbol (‡) from "Printed for Official Use" is welcome. Within the Department of the Army the term "For Official Use Only" is applied to "unclassified information, records, and other material which have been determined to require protection from disclosure to the general public" (AR 340–16). The fact of the matter is that much of the material assigned this symbol is available to libraries and the public through distribution by DocEx or mailing lists of the issuing agency. It is

often available also on individual request to the agency. The agency may request GPO to use this symbol rather than the dagger (†) to discourage such requests. The catalogers at GPO are unable to verify the availability of each entry, and may assign the symbols based on past experience, or their knowledge of the number of copies printed for the agency.[13] The same series may also appear with different symbols in different issues; one month a dagger, and the next month a double dagger.

After this cursory review of the types of publications now listed in the *Monthly Catalog*, let us consider what should or should not be entered therein? Army regulations should either be entered in the *Monthly Catalog* or the Index to them should be furnished to depository libraries. Due to the large quantities published and frequency or revision, the latter alternative would be preferable. I do not believe the *Monthly Catalog* should be a complete, universal, national bibliography of all government publications, printed or processed, issued by any and all agencies, from the smallest to the largest, of the federal government. More and better agency produced catalogs and indexes of their own publications are needed to supplement the *Monthly Catalog*. Some of the "Not Available" items, such as technical reports, or Corps of Engineers reports of only local interest should not be listed. The logical place for these is in agency indexes and catalogs. There is some unnecessary duplication with listings in the *Government Reports Announcements*. Titles which are available only from NTIS should not be listed in the *Monthly Catalog*.

Non-GPO Publications

One of the major complaints with the *Monthly Catalog* for the past forty years has been its failure to list a significant number of so called "non-GPO" publications. The major crusaders for this cause have been Jerome K. Wilcox in the 1930's and 1940's,[14] and more recently Clifton Brock.[15] As a result of the concern of Wilcox and the Public Documents Committee (PDC), "processed" materials produced outside of the GPO were entered in the *Monthly Catalog* beginning in January 1936. They were defined as "publications which are reproduced by duplicating processes other than ordinary printing, such as mimeograph, multigraph, planograph, rotaprint, multilith,

etc."[16] The use of mimeograph and multigraph for publication of government documents within the agencies is believed to have begun between 1900 and 1910.[17] In 1937 Wilcox and the PDC attempted to have non-GPO items made available for depository distribution. Though they failed, their efforts resulted in a major success with Congressional hearings finally made available to depositories. Wilcox's concern is evident in his report of 1947 which resulted in major changes in the preparation and format of the *Monthly Catalog*. He hoped that the reduced workload caused by these changes would allow more time for securing and listing non-GPO publications. A major breakthrough occurred with the passage of the non-GPO provision of the Depository Library Act of 1962, but it has not been exploited.

The Depository Library Act of 1962 (76 *Stat.* 352) authorized the distribution of non-GPO publications to depository libraries. However, the law contained several provisions which limited its effectiveness. Materials could be exempted if they were determined by the issuing agency to be "required for official use only or for strictly administrative or operational purposes." Since the agencies were also required to pay for the publications and cost of shipment to the GPO distribution point, they had little incentive to cooperate and were provided a major loophole. The Superintendent of Documents has not been overly enthusiastic about implementing the program. The program was also dealt a major blow in its first year when in 1963 the House Committee on Appropriations questioned "whether any significant portion of the [non-GPO] material produced in some 300-plus plants around the world would be of permanent value," and directed the Superintendent of Documents to make further studies on the ramifications of the program.[18] The Committee was apparently appalled at the total price tag of $2 million to the agencies and GPO to start the program. In 1964, the Superintendent of Documents asked for, and received, a token amount to start pilot programs with some series published by the Bureau of the Census and Department of the Interior. In 1967 several series of Department of Labor publications were added. In 1968 tentative arrangements with the Department of the Treasury and Library of Congress were revealed. They never materialized. Since then no further agencies have been added, and routine requests were made annually for funds to distribute an additional 150,000 pieces based on an increase in the number of depositories and items from the cooperating agencies. In 1972 the

Superintendent of Documents confided "that at the present time we have—and this is a personal observation—enough problems supplying what we are required to supply rather than taking on another program i.e. . . . [non-GPO items] which is expensive and requires a great deal of manpower to get moving again."[19]

Most librarians are familiar with one side of the coin presented by Wilcox and Brock. The other side of the coin is less familiar and was most ably presented by former Public Printer, James L. Harrison in the 1962 hearings on the Legislative Branch Appropriations for Fiscal Year 1963[20] and on the Depository Library Act of 1962.[21] Based on my own experience in collecting publications and technical reports from all elements of the Department of Defense while serving at joint military service schools, I also believe that librarians have overestimated the value of these publications, and have underestimated the quantities involved and the difficulty in identifying, collecting, and gaining bibliographical control over them.

In 1962 a staff member of the Senate Committee on Rules and Administration estimated that non-GPO publications represented 60-65 percent of the total.[22] In 1972 the Public Printer estimated that they represented 85-90 percent of the total.[23] I think this figure is still too low. A difficulty in evaluating these estimates and the percentages presented is that they are usually based on dollar amounts expended or budgeted. Non-GPO publishing is characterized by small runs with cheaper equipment and paper, whereas GPO publishing represents large runs of one title on more expensive equipment and paper. Thus, for the same amount of money, a considerably larger number of non-GPO *individual titles* (which should be the criteria for comparison) are produced. With respect to the value of non-GPO publications, Mr. Harrison testified in 1962 that "the librarians themselves indicated to us that not more than 3 or 5 percent of the field publications [non-GPO] would be needed."[24]

What is the legal basis for listing non-GPO publications in the *Monthly Catalog*? The authority stems from the General Printing Act of 1895 which states in connection with the "comprehensive index" that "the head of each executive department, independent agency, and establishment of the

Government shall deliver to him [Superintendent of Documents] a copy of every document issued or published by the department, bureau, or office not confidential in character." (44 *U.S.C.* 1710) The *Monthly Catalog* has superseded the *Document Catalogue* which was the "comprehensive index." The non-GPO disciples of Wilcox and Brock argue for full compliance with the law. However, the "comprehensive index" and "consolidated index" parts of the law have already been disregarded as times changed since 1895. The entire law should be changed to reflect the realities of the current situation. Congress is no longer the dominant branch of government and its publications represent only a small fraction of the total;[25] the executive departments are no longer small and concentrated in Washington; the majority of printing is no longer done at GPO. By Resolution of July 15, 1937 the Joint Committee on Printing interpreted the law as including processed as well as printed publications, but excluding "administrative" publications. It has also interpreted non-GPO publications as those produced at departmental and field printing plants. However, enormous quantities are also produced in offices, supply rooms, etc. on mimeographs, copying machines, and similar means of reproduction. The literature is full of occasions since 1895 of the Superintendent of Documents or the Joint Committee on Printing reminding the agencies by correspondence or other means of these provisions with little effect. The latest effort was GPO Circular Letter no. 105 dated September 12, 1973 which lists nine categories of publications considered as *administrative*.

In 1949 McCamy suggested one solution to the non-GPO publications problem, as well as other problems in government printing and publishing. This suggestion has unfortunately not received the attention it deserves. He concluded that "the Government Printing Office is primarily an executive agency in its function, and it should be placed in the Executive Branch of the Government, where it could coordinate the publishing and distribution of publications for the entire government."[26]

Monthly Catalog as Substitute for Full Cataloging

A subject related to the *Monthly Catalog* and the SuDocs classification system is the method of cataloging and record keeping performed in the nation's libraries, particularly

depositories. In 1966 Thomas Shuler Shaw speculated on what might have happened if the SuDocs classification had not been established as a ready made system (and I might add if the three catalogs directed by law had not been published). He felt there would be fewer and/or smaller separate documents collections, with more documents treated as regular library materials, to include more cataloging by the Library of Congress.[27]

The work by Grace A. Campbell in 1939 and her report entitled *A Study of the Extent to Which Existing Printed Government Indexes and Catalogues Can Replace the Card Catalogue in Making the Contents of Federal Documents Available*,[28] is still valuable and appropriate today. It also contains an excellent bibliography.

Jerome K. Wilcox had some thoughts on the matter also. In answer to a proposal in 1948 that a Cumulative Catalog of the Library of Congress (with accompanying LC printed cards) should be developed as a national bibliography and include U.S. government documents, he suggested that perhaps the Superintendent of Documents, through the medium of the *Monthly Catalog* should be entirely responsible for the national bibliography of federal documents, and that there should in fact be less LC activity in this area. LC should limit itself to preparing cards only for important documents, and "should discontinue analytics for most publications in series, allowing such analysis to be made only in the *Monthly Catalog*." Apparently anticipating those librarians who want a copy of the shelf list card SuDocs prepares for every entry in the *Monthly Catalog* he asked, "should any library's catalog contain a card for every federal publication in its collection? The answer should be definitely no, especially in the case of small pamphlets." He argued for continued reliance on the *Monthly Catalog* for analytics and for a subject approach to the documents collection. He felt card catalogs were getting too unwieldy and expensive to maintain.[29] The records for most documents in separate collections are single entry holding (or checking-in) cards, with numbered form cards being used to check in numbered publications in series.

On the other hand some documents librarians are urging greater participation by the Library of Congress, and more LC

cataloging of government documents especially in connection with the Cataloging in Publication (CIP) program.[30] Other documents librarians have suggested that each new SuDocs shelf list card be furnished to depository libraries. This was actually done from February to October 1904 when 315,000 printed cards were distributed. At first multiple sets of cards were furnished. However, dissatisfaction arose when it was found necessary to limit the number of cards to one per title, and the project was abandoned.[31] In the 1973 Biennial Report of Depository Libraries, question 30 asked if it would be "helpful to your library" if it were furnished a "printed card of our Catalog entry?" A renewal of the 1904 program may be under consideration. Despite the automation in the preparation of cataloging copy for the *Monthly Catalog* it is intended to continue preparation of shelf-list cards which had previously been the basis of preparation of copy for the catalog.

Of the 16,770 entries in the *Monthly Catalog* for the first eleven months of 1973, 20 percent indicated availability of LC printed cards. Most of these were Congressional hearings, GAO reports, and treaties.

The Library of Congress is also a participant in the program to gain better bibliographical control over non-GPO publications in accordance with statutory provisions which direct that it be furnished "all other publications and maps, which are printed, or otherwise reproduced, under authority of law, upon the requisition of a Congressional committee, executive department, bureau, independent office, establishment, commission or officer of the Government." (44 *U.S.C.* 1718) On June 5, 1967 at the request of LC, the Bureau of the Budget issued its Bulletin 67-10 calling to the attention of executive departments these statutory provisions. The program consists of evaluating the material received for possible addition to the LC collection with subsequent preparation of LC printed cards; forwarding many of the titles received (particularly those acquired by DocEx which is operated by LC) to GPO for entry in the *Monthly Catalog*, and listing publications considered to be of research value in an annual selective checklist titled: *Non-GPO Imprints Received in the Library of Congress.*[32] Four such lists have been published for publications received between July 1967 and December 1969, then annually for 1970, 1971, and 1972. . . pickings have been slim. The 1972 edition lists only 408 separate titles, and 142 serial titles.

Monthly Catalog and GRA

There is some duplication of listings in the *Monthly Catalog* and the *Government Reports Announcements* (GRA) published by the National Technical Information Service (NTIS). The mission of NTIS is "to collect and disseminate scientific, technical, and engineering information." (64 *Stat.* 823) In accordance with its charter it has become the national clearinghouse for the collection of government sponsored technical report literature. Its catalogs have properly become the national bibliography for this type of material. However, NTIS has also exceeded its charter. It has become a cataloging and/or selling agent (in microfiche copy) for standard publications (principally of its parent Department of Commerce) which are printed and/or distributed by GPO and hardly fall into the category of technical report literature. Recent issues of GRA have listed and abstracted or analyzed the following: *Survey of Current Business*, *Overseas Business Reports*, *Foreign Economic Trends*, *Current Industrial Reports*, *Annual Survey of Manufacturers*, etc. NTIS also sells microfiche copy of the 1970 Census reports. Although this stretches the law, it is not necessarily bad. The contents of these journals and reports are no longer analyzed in the *Monthly Catalog*. GRA refers the reader to GPO for purchase of paper copy, but NTIS makes available microfiche copies of the reports as is done for most of the other reports listed in GRA.

On the other hand, the *Monthly Catalog* includes a number of technical reports which are properly listed therein as well as in GRA. These are technical reports which are printed, distributed, and/or sold by GPO such as National Bureau of Standards *Technical Notes*. Also included are non-GPO technical reports which are distributed to depository libraries, such as Bureau of Mines *Reports of Investigations*. Depository libraries properly look to the *Monthly Catalog* as the sole source index to their depository collections.

Let us consider some of the features of GRA and related technical report abstract services to evaluate if they could be applied to the *Monthly Catalog*. Their main distinguishing feature is that they are abstract services as well as catalogs and indexes. Should all, or perhaps selected titles be abstracted in the *Monthly Catalog*? Private industry has stepped

in and found a market for abstracts of selected classes of publications which are properly listed in the *Monthly Catalog*. The Congressional Information Service (CIS) has provided such services for Congressional publications since 1970, and more recently for statistical publications with its *American Statistics Index*. Another feature of GRA is that its listings are arranged by broad subject groups, rather than by corporate author. This has not replaced the need for a subject index. Listing by corporate author appears to be logical for the *Monthly Catalog*. The *Government Reports Index* includes five indexes: corporate author, subject, personal author, contract number, and accession/report number. Throughout its long history, the *Monthly Catalog* until recently contained only one index, mainly a subject index based on key words in the titles, together with some personal author and series entries. However, the January 1974 issue introduced three separate indexes: subject, personal author, and title. A fourth, or report number index comparable to GRA's would be useful. A reader often knows only the number of a report or bulletin, and it is difficult to retrieve it in the present index.

Another characteristic of these abstract services is that they are automated and the indexing is done in greater depth from a controlled vocabulary. Most of these services also disseminate materials and have to retrieve reports from their collections based on the subject headings or descriptors which they have assigned. Certain criticisms have frequently been made of the *Monthly Catalog's* subject indexes: use of key words in the title instead of an analysis of subject content; insufficient depth of indexing; inconsistency; and inadequate cross references. A note at the beginning of the index readily admits that subject entries are based on key words in the title. No specific number of subject headings are assigned to each title, but use of key word title indexing necessarily limits the depth of indexing. Various critics have suggested that the *Subject Headings Used in the Dictionary Catalogs of the Library of Congress* be used for uniformity. Actually, LC subject headings are used as a starting point, but are often not specific or current enough, so that a number of other reference sources are consulted. An authority file of subject headings and cross references is maintained by the GPO catalog staff. However, there are frequent additions and changes to the file, so that it has not been published and there are no plans to do so.[43]

Comparison with British government document bibliography (HMSO, *Government Publications)* provides an example of cumulation which would make the *Monthly Catalog* more useful: cumulation of the entries (as well as the index) each year. The *Document Catalogue* was really a biennial cumulation of most of the entries in the *Monthly Catalog*.

In 1971 it was announced that representatives of GPO and NTIS were discussing the possibilities of combining the *Monthly Catalog* and *Government Reports Announcements*.[34] A study group representing users of GRA were horrified at this suggestion. They felt that GRA was already too large and unwieldly (many librarians feel the same about the *Monthly Catalog*) and suggested that instead, GRA and NTIS should be broken up into smaller units specializing in certain disciplines.[35] I agree that the two catalogs should not be combined since they are intended for two distinctly different type users. The *Monthly Catalog* is large enough now; it should be supplemented by more and better indexes and catalogs prepared by issuing agencies covering their own publications, especially the many non-GPO publications which are of little interest to the general public who are the primary users of the *Monthly Catalog*.

Deficiencies in the Monthly Catalog

Alleged deficiences in the *Monthly Catalog* have been the subject of studies by individual documents librarians and library school students, and professional library associations for many years.[36] Many of these deficiencies still appear in the catalog and continue to be noted in such studies. Others have been corrected as the results of such studies, the primary example being the Wilcox study of 1947. Deficiencies in the following areas will be discussed: indexing, number and extent of entries, scheduling and cumulations, and arrangement of entries.

Criticism of indexing consists mainly of the following: insufficient depth and lack of specificity due primarily to indexing based on key words in the titles; insufficient cross references; inconsistency in subject headings with an apparent lack of a controlled vocabulary or thesaurus; a need for more personal author entries and "popular name" entries for reports

associated with committee chairmen. Most of these deficiences were presented to the Superintendent of Documents by the Government Documents Round Table (GODORT) following the ALA mid-winter conference of 1973.[37] The GPO reply was presented to GODORT at the annual ALA convention in June 1973.[38]*

The *Monthly Catalog* did not list personal authors in the index from 1947 to 1963. Since 1963 the GPO policy has been to list only the first author of a joint authorship and omit entire categories of individuals such as translators and authors of JPRS titles.[39] The void has been filled by Pierian Press which has compiled an index to all personal names which have appeared in the entries of the *Monthly Catalog* from 1941 to 1970. It is assumed that future cumulations of these useful indexes will be compiled since the new personal author index of the *Monthly Catalog* retains the policy mentioned above. Another useful tool now in its second edition is the Library of Congress *Popular Names of U.S. Government Reports.* However, the problem here is that the "popular name", usually that of the chairman of the committee or commission which prepared the report, may not become popular until some time after the report was received for cataloging.

Criticism regarding the number and extent of entries primarily concerns the failure to list many non-GPO publications. This and related problems were discussed earlier.

Complaints about scheduling concern a lack of timeliness. Suggestions have been made to issue the catalog more frequently. GRA, for example, is published every two weeks. Suggestions have been made as early as 1911 for some daily announcement service, such as that provided by HMSO for British publications.[40] This problem is of major concern to non-depository libraries who depend on the *Monthly Catalog* as an announcement service in order to obtain new publications. It is also of concern to depository libraries who depend on the catalog as a subject index to their collections.

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*Norman Barbee's reply is given in full in the source cited. The GPO Library maintains an authority file of subject headings and cross references used in the *Catalog*. There are some 20,000 cards in this file. The Library also uses the Library of Congress subject headings, the *Thesaurus of ERIC Descriptors* and a number of other standard sources. C. C.—Editor.

In order to determine the extent of the problem I made an analysis of the receipt date of 595 depository titles which were listed in the November 1973 issue of the *Monthly Catalog* which was received on November 7th. Of these titles, 180 (30.2%) had been received in September, 404 (67.9%) in August, and 11 (1.9%) in July. The time lag between date of receipt of the piece to receipt of the *Monthly Catalog* ranged from 40 to 118 days, with over half of them finally listed after 71 days. A monthly schedule has a built in time lag of up to 29 days. GPO provides several alternatives of limited help: the "Previews" section of the *Monthly Catalog*, and its semi-monthly *Selected U.S. Government Publications*, which lists and annotates new (as well as in-print older) sales items which it feels have popular appeal. A selected annotated list of recently published U.S. Government Publications also appears monthly in *The Booklist*.

In the past GPO has accepted subscriptions to the Daily Shipping List which accompanies each depository shipment. However, it will no longer accept subscriptions, but will continue serving present subscribers.[41] As an alternative, non-depository libraries may prevail upon a nearby depository to provide them with a Xerox copy of the list. It contains item number, title of publication, and SuDocs classification number. Sales items are indicated, with price and stock number information provided if available.

Preparation of the *Monthly Catalog* has been partially automated. This has not improved its timeliness appreciably. Cataloging data is fed into a computer where it is stored. Printouts can be obtained of the main listings and the three indexes. This is used for editing and making corrections during the month. At the close of the month, a final corrected copy is then used by the printer for setting of type and page composition. Saving of time occurs primarily in the preparation of the index, particularly the annual index which is now merged manually and requires the full time of the cataloging staff for two weeks.[42] However, once the process is completely automated to include use of photocomposition machine (Linotron) for the setting of type, the "time required for production of the *Monthly Catalog* may be cut from six weeks to one week."[43]

My principal complaint against the *Monthly Catalog* is the lack of adequate and timely cumulation of the index. One has

to search month by month through up to eleven issues of the current year, then year by year until 1960 for the latest decennial cumulation. Two decennial cumulations are available for the periods 1941–1950, and 1951–60. For material before 1941 one can either use the annual indexes in the *Monthly Catalog* or the biennial *Document Catalogue*. More cumulations are needed during the year, as a minimum semi-annually, but preferably quarterly. The partial automation of the catalog should make this feasible, in addition to allowing timely preparation of decennial and possibly five year cumulations. The latest decennial index through 1960 was not published until 1968. A five year index covering the years 1961–1965 was planned but is still not published.

Meanwhile private industry has come to the rescue of the harried documents librarian. Carrollton Press is publishing a 14 volume *Cumulative Subject Index to the Monthly Catalog of United States Government Publications, 1900–1971*. The eagerly awaited first volume covering letters A to Ashworth was released in November 1973. It represents a massive merging and editing of all entries in 48 annual indexes, two decennial indexes, one six month's index, and original cataloging for 30 issues (January 1906–June 1908) which were not indexed. It should be worth its weight in gold.

Other valuable services have been prepared or planned by Carrollton Press and its sister publishing firm, U.S. Historical Documents Institute. Documents librarians have long cried for an update of the 1909 Checklist. A dual media edition *Checklist of U.S. Public Documents, 1789–1970* was published in 1971. It consists of microfilm copy of over 1.2 million shelf list cards from the GPO Library, plus five index volumes to the collection. This is being reissued in an improved microfilm format through 1972. Mary Elizabeth Poole has been commissioned to update her *Documents Office Classification to 1966*, 3d ed. using the Checklist. It is also planned to reprint the *Monthly Catalog* from January 1895 to June 1924 with the addition of SuDocs classification numbers for each entry. This will appreciably improve the usefulness of the catalog for that period.

Criticism about the arrangement of the *Monthly Catalog* concerns entry under corporate author using an inverted form. In making his recommendations for major changes to the

Monthly Catalog in 1947, Wilcox dismissed a dictionary catalog arrangement as too expensive and time consuming. Subject arrangement similar to GRA has been suggested. The matter of inversion has not risen lately, but it does present a problem since this differs from LC practice. The holding records which I maintain for a regional depository collection are arranged in alphabetical order using direct corporate author entries. I do not find the multiplicity of "bureau" or "committee" entries to be a major problem. On the other hand, the November 1973 issue of the *Monthly Catalog* lists 33 authors starting with the word "National" where the key word is also buried in the official title. If GPO is to follow inversion to its logical conclusion, why not use "Mental Health, National Institute of"? The listings are also subject to the whims of the SuDocs classification system. Publications of the Law Enforcement Assistance Administration are buried under Justice Department since a distinctive author symbol has not been assigned to this major government agency and author. Many other examples might be cited where publications of major commands are buried under executive department listings.

The *Monthly Catalog* is then an imperfect bibliographical tool in an imperfect world. Documents librarians and other users would do well to analyze this major tool to learn what it can, or can not do for them. They could then make better use of it, and hopefully offer constructive criticism of a practical nature for its improvement.

Notes

1 *Monthly Catalog*, February 1908, pp. 325–28. Reaffirmed in "GPO Responds," *Documents to the People* (*DttP*) I, no. 4 (September 1973): 9.

2 U.S. Government Printing Office, *Annual Report of the Public Printer for 1907*, pp. 335–36. [Hereafter cited as *GPO Annual Report*.]

3 Jerome K. Wilcox, "Monthly Catalog Problems Studies," *Library Journal* 73 (December 1, 1948): 1712.

4 *Document Index*, 54th Congress, 1st sess., 1897, pp. 3–7.

5 U.S., Congress, Senate, Committee On Printing, 52d Cong., 1st sess., 1892, Report no. 18 to accompany S.1549.

6 U.S., Congress, Senate, Committee On Printing, 53d Cong., 2d sess., 1894, Report no. 574 to accompany H.R.2650. U.S., Congress, House, Committee on Printing, *Public Printing and Binding, and the Distribution of Public Documents*, 53d Cong., 1st sess., 1893, Report no. 7.

7 *Monthly Catalog*, January 1895, pp. 3–4.

8 *Ibid.*, August 1907, p. 3.

9 *Ibid.*, July 1908, p. 3.

10 *Ibid.*, September 1947, pp. iii–vi.

11 *Ibid.*, June 1912, pp. 821–23.

12 Philip Van De Voorde, " 'Official Use' Trend in *Monthly Catalog of United States Publications*," *LRTS* 14, no. 3 (Summer 1970): 455-58.

13 Visit to GPO Public Documents Department, November 15, 1973.

14 Jerome K. Wilcox, "Mimeographed, Micrographed, and Other Near-Print Publications of the Federal Government, Their Origin, Distribution, Indexing, and Other Problems," *Public Documents. Papers Presented at the Conference, 1934*, (Chicago ALA, Committee on Public Documents), pp. 160–93. [This is one of Wilcox's early and more significant articles on the subject of non-GPO publications.]

15 Clifton Brock, "Implementing the Depository Law," *Library Journal* 90, (April 15, 1965): 1825–33. [This is one of Brock's more significant articles on the problem of non-GPO publications.]

16 *Monthly Catalog*, January 1936, p. 3.

17 LeRoy C. Merritt, *The United States Government as Publisher*, (Chicago: University of Chicago Press, 1943), p. 33.

18 U.S. Congress, House, Committee on Appropriations, *Legislative Branch Appropriations for 1964*, 88th Cong., 1st sess., Report no. 369, 1963, p. 24. [This review was based on testimony of the Superintendent of Documents before the Committee covering appropriations for fiscal years 1964 through 1974.]

19 "An Informal Discussion with Robert E. Kling, Jr., Superintendent of Documents," *The Shipping List* (Charlottesville: Public Documents Sect., Alderman Library, University of Virginia) 2, nos. 2–4, (April 1973): 4–5.

20 U.S., Congress, House, Committee on Appropriations, *Hearings, Legislative Branch Appropriations for 1963*, 87th Cong., 2d sess., 1962, pp. 229–35.

21 U.S., Congress, Senate, Committee on Rules and Administration, *Hearings, Depository Libraries*, 87th Cong., 2d sess., 1962, pp. 62–90.

22 *Ibid.*, p. 21.

23 *Federal Library Committee Newsletter*, no. 54 (May 1971), p. 3.

24 *Hearings, Legislative Branch Appropriations for 1963*, p. 233.

25 James L. McCamy, *Government Publications for the Citizen*, (New York: Columbia University Press, 1949), 82–83.

26 *Ibid.*, p. 84.

27 Elizabeth Howes and Mary Schell, *U.S. Government Publications Acquisition, Processing, and Use; Proceedings of Three Workshops* (Sacramento: California State Library, 1967), pp. 88–89.

28 Stillwater, *Oklahoma Agricultural and Mechanical College Library Bulletin*, no. 7, November 1939, (Stillwater: OAMC, 1939).

29 Jerome K. Wilcox, "National Bibliography and Bibliographical Control: Federal Documents," *College and Research Libraries*, 9 (April 1948): 65-67.

30 *DttP* 1, no. 1 (September 1972): 1, 6.

31 *GPO Annual Report for 1907*, pp. 339–42.

32 U.S. Library of Congress, Exchange of Gift Division, *Non-GPO Imprints Received in the Library of Congress in 1972*, p. v.

33 Visit to GPO Public Documents Dept., November 15, 1973.

34 U.S. Library of Congress, *Information Bulletin*, July 15, 1971, p. A-134.

35 Committee on Information Hangups, Document Procurement Subcommittee, *Distinction is All: NTIS from a Technical Librarians Point-of-View* [ED 058 913] (Washington: CIH, 1971), p. 4.

36 The following studies provide a good summary:

Philip Shore, "An Evaluation of U.S. Documents Bibliography," *LRTS* 4 (Winter 1960): 36–43.

Alphonse F. Trezza, "The Documents Workshop; a Review and a Look Ahead," *Illinois Libraries* 53 (June 1971): 426–30.

Robert Simmons, "Finding That Government Document," *RQ* 12 (Winter 1972): 167-71.

37 LeRoy C. Schwarzkopf, Dan Lester, and Eugene Malkowski, "Suggestions to GPO by GODORT," *DttP* 1, no. 3 (May 1973): 21–27.

38 "GPO Responds," *DttP* 1, no. 4 (September 1973): 6–11.

39 Catherine J. Reynolds review of *United States Government Publications Monthly Catalog. Decennial and Quinquennial Cumulative Personal Author Index, 1941–1950; 1951–1960; 1951–1965; 1966–1970,* 4 vols., ed. by Edward Przebienda, *CRL* 34 (September 1973): 287–89.

40 *Monthly Catalog,* July 1911, p. 11.

41 Visit to GPO Public Documents Dept., November 15, 1973.

42 *Ibid.*

43 U.S. Library of Congress, *Information Bulletin,* July 15, 1971, p. A-134. "An Informal Discussion with Robert E. Kling, Jr.," pp. 1–3.

The Federal Depository Library System: What Is Its Basic Job?

Bernadine E. Hoduski

The Federal depository system has its beginnings in a congressional resolution of January 28, 1857 which provided for the designation of such libraries by Senators and Representatives. The primary basis for designation thus became the congressional district; it still is. In 1895 the law was revised and operation of the program placed under the Superintendent of Documents. The law was not changed again until 1962. The act of August 9, 1962 is in effect today.

While the 1962 act increased the number of depository libraries possible, it left the congressional district as the geographic basis. Representatives make designations within their districts, Senators, at large within the state. There are some advantages to this arrangement. Ms. Hoduski makes a good point in her paper that depositories serve the constituents of congressmen and this fact can be useful. The creation of new congressional districts may create new depository vacancies; this has a degree of flexibility. It should be noted that once a library has been named a depository, it retains that status unless it ceases to exist or voluntarily relinquishes the privilege. The criticism of many librarians is that an uneven geographical distribution of libraries results.

The law provides that a library be located in an area where it can best serve the public need, an area not already served by an existing depository, that it possess ten thousand books, other than government publications, and that it make the publications available. These are minimum qualifications as you can see.

Once designated, a library makes its selections from the classified list provided by the Superintendent of Documents. This list contains publications deemed to be of sufficient public interest to warrant distribution, but excepts those "so-called cooperative publications which must necessarily be sold in order to be self-sustaining." (Section 4 of the act) Of course, this provision excludes from depository distribution most publications of the Educational Resources Information Center, the National Technical Information Center, and others.

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Once a choice is made, a library receives material in that class at the next scheduled printing of publications for the class. A library will not receive publications in press at the time of its selection nor will it receive back issues of that class. A library may amend its choices at any time.

This freedom of choice is a considerable advantage. A library need take no core of materials but just what it wishes. Nor is there a minimum number of titles it must take. Some depository libraries take few. A library which takes few titles may, of course, make much more intensive use of those few than a library selecting a much larger number of titles. However, there is surely a minimum number in conscience required, else a library ought to purchase what it needs and vacate its depository status. Such a standard will be considered by the Advisory Council to the Public Printer for Depository Libraries as Ms. Hoduski points out. This is but one of several standards to be developed. Publications selected in advance are mailed to the depository postage free. Costs to the library begin upon receipt.

An important provision of the 1962 act was that allowing two regional depository libraries to be established in each state. A library may submit requests to its regional for disposition of materials it has retained for five years. Prior to this change, a library retained selected materials forever, unless superseded, replaced by a microform, or disposed of through the Superintendent of Documents. This tends to make a library less cautious in its choices, of course, but increases the possibility of greater availability of materials locally. The regional, since it must hold at least one copy of each government publication retrospectively, fills gaps in its own collections from offerings of non-regional depositories in its area or authorizes the disposition of the publications to other depositories within the state, then to other libraries, or provides other alternatives. It is reasonable to expect that the two regionals within a state would be so placed geographically as to provide equal access, but there is no definite provision in the law about their geographical placement.

In accepting regional depository status, a library agrees further to provide interlibrary loan and reference service. Supplying materials on interlibrary loan may require a regional to duplicate its holdings to some extent.

While the regional depository library system is excellent in theory, it is noteworthy, as Ms. Hoduski points out, that only seven states have the two regionals allowed. Regional status is a dubious honor considering the enormous costs of storage (hard copy or microform), accessioning, record keeping, preservation and service. Few libraries can afford these costs, certainly few public ones, the type most accessible to the general public.

As Ms. Hoduski indicates and I have mentioned above, there are no real standards for depository libraries. The inspection procedures provided in the law have until recently largely been carried out by the Superintendent of Documents using a mail survey. Such a survey is inadequate, of course; it has been the best the Superintendent, with

lack of staff, has been able to do. Ms. Hoduski's proposal for inspection by regionals is excellent and a sensible approach to the problem. The inspection would be a cost factor to the regional. We do need standards. Standards need to be met and some libraries need help and encouragement in meeting them. Libraries not willing to meet them should be deprived of depository status. Depriving a library of its status may be a touchy matter with the Representative to whose district it belongs.

The whole purpose of the depository system is to make government publications available. The concept is remarkable and the system is functioning but it's good for us to ask along with Mr. McCormick, the Public Printer, what is the depository system really all about. Also, how well *is* it working? What's wrong? What's needed? Ms. Hoduski tells us with enthusiasm what the depository system's basic job is and suggests some good ideas for improvement. She doesn't pull her punches and her forthrightness is needed and welcome.

The depository program is now very costly. If the Congress is asked to provide additional financial assistance to regional depository libraries and to provide money for more efficient means of bibliographic control, it is going to have to be convinced of this need. We must convince the Congress; we must have this further financial support.

C. C.—Editor

The basic job of the federal depository library system is to make "government publications available for the free use of the general public." (44 *U.S.C.* 1909) The new Public Printer, Thomas F. McCormick, put it this way to the Advisory Council to the Public Printer on Depository Libraries:

> You know, I'm getting a feeling, I don't know why, I just have a feeling that we are really not sure that the depository library system is really the best system at all, or whether it is even a good one. Am I right or wrong? Do we know? As I understand, the whole purpose of it is to make federal publications available to the public and to do it in a reasonably efficient and effective manner. Is it an effective one? . . . I would be very much interested in the views of this group as to what the depository library system is really all about.[1]

One way of answering this question is to step out of our roles as librarians and into our roles as citizen-users. As members of the public can we freely use the depository in our Congressional district? Or is it only truly accessible to certain card carrying members of the public (e.g. student pass, faculty pass, stack pass, city library card)? The terms "available," "free-use," "general public" have to be defined in terms of the citizen-user.

As a citizen-user the term "available" means that the documents are within physical reach and use during the same hours as the rest of the library's collection. It doesn't mean documents languishing behind bars; in closed stacks, unopened boxes and unweeded vertical files.

As a citizen-user, available means that the documents can be copied, borrowed, in person or by interlibrary loan, browsed through, touched, and read.

As a citizen-user, available means that the documents will be bibliographically accessible through standard, regularly used library tools such as: catalogs, shelf lists, union lists, inventory control systems; and through specialized bibliographies, abstracts and indexes.

As a citizen-user, available means that the library will take a large enough percentage of documents to make it worthwhile to use the library in the first place. It also means that the library will take material in subject areas of interest to the general public as well as the particular institution's users. Some librarians have gone so far as to suggest that depositories must take a core collection of documents, such as: the *Code of Federal Regulations, Federal Register, Congressional Record*, which are of use to most citizens.

As a citizen-user, "free-use" means that any citizen in the library's Congressional district can use the documents free of charge. It does not mean purchasing a card, being denied admittance because of age, place of residence, employment, status as student or non-student. This is true even if the rest of the library's collection is off limits because of the aforementioned reasons. (Sounds like a good argument for a separate documents collection and perhaps even a separate entrance—or possibly just outright freedom of access.)

As a citizen-user, "general public" means everyone.

Another way of answering the question is by examining our roles as librarians and the role of the depository system itself in serving the needs of the citizen-user. We need to look at the following terms: government publications; available; free-use; and general public, in relation to these roles.

How many "government publications" are "available" through the depository system? There has been a trend during the last few years for more and more publications to be published through NTIS, ERIC, private contractors, and so on. This means that they are no longer automatically made depository items. NTIS and some LC publications are excluded as "so-called cooperative publications, which must necessarily be sold in order to be self-sustaining"[2] from depository distribution under the *1962 Depository Act*. Contract publications should be included under the 1962 act but seldom are.

The ALA Ad Hoc Committee on the Depository Library System is concerned enough about the lack of availability of government publications under the present law to suggest the following changes:

> Depository libraries should be offered, at no cost to them, the following:
>
> a. All publications produced at the expense of the federal government regardless of format, method of reproduction, or source. Exceptions should include: (1) security classified documents (available when declassified) and; (2) publications produced for obvious internal office use. An option should be given to depository libraries to receive documents in paper or microform; some publications may be provided in both forms.[3]

Are the government publications already in the depository system available to all citizens? Are there enough depository libraries in the right places? Are the depository libraries now in existence committed to serving the public? Ever since the first depositories came into existence in 1857 librarians have not been completely satisfied with the answers to these questions. Librarians are the ones who have pushed for more depositories. The number has grown from 419 at the passage of the *1895 General Printing Act* which gave GPO responsibility for them to 1139 as of January 1974.

Depositories from the beginning have been tied to the Congressional district designation. Some librarians express unhappiness with this method and feel that it keeps worthy libraries from receiving depository status. This is true in some instances, but to tamper with this politically popular method is to court sure disaster. We librarians have the greatest political machine in existence if we would only use it. Depository

librarians serve a whole Congressional district and, therefore, serve all the constituents of a Congressman. What other librarians can say that and not be accused of political campaigning? Depository librarians, no matter the type of institution they work out of, are in the unique position of having the responsibility of informing their Congressman about how the library is serving his/her constituency. This can be done by advising the Congressman on a regular basis of activities and service of the depository. The librarian should send the Congressman depository publications such as book lists, special bibliographies, annual reports, special reports so the Congressman knows that the money spent to provide government publications is doing something for his/her constituents. The librarian should ask that the depository be mentioned in the Congressman's newsletter as offering services to constituents.

The Congressman would benefit from knowing which series of publications the library is getting since he/she gets many calls for information from citizens and sometimes has trouble getting the material or in knowing where to send the individual. If at all possible the librarian should visit the Congressman in Washington, D.C. or when home in the district and find out what type of information is most needed by constituents, as indicated by questions to his office and then obtain that material, if not already doing so. Also send him/her the names and phone numbers of those working with government publications. The Congressman should be invited to visit the depository when home.

Any librarian not communicating with the district's Congressman is missing the chance of making him/her feel a personal commitment to the depository library. Librarians need this kind of personal understanding when it comes to financial support for the depository system and for all libraries. The librarians also need this support if GPO decides to inspect the library to see if it is worthy of continuing as a depository. If librarians make an attempt to impress the Congressman with the good job they are doing for the district's constituents, they can't help but do a good job.

Even those libraries which have received their designation under other than Congressional district (such as Senate, land-grant colleges, state libraries, highest state appellate court libraries) have nothing to lose and a lot to gain by

informing the senators and representatives of their activities. The drastic increase in GPO prices since December 1973 and the cutting of agency budgets will see a decrease in free materials flowing from the agencies. This will mean that being a depository is going to once again be a privilege worth seeking and keeping. Law librarians have sought depository status as a prize for a number of years as witnessed by the number of bills introduced in Congress during the last couple of sessions.

Many federal agencies are not really aware of what an asset depositories can be to them. If agencies send their publications to depositories, agencies in turn can send inquiring citizens to the depositories with the reasonable expectation that their publications will be available to the citizen. In doing this the agencies save the expense of giving copies of their publications to every citizen and increase the use of the depositories, therefore, making distribution to depositories beneficial to the agencies. Librarians need to educate the agencies as to the value of depositories. Perhaps if we did that, GPO wouldn't have so much trouble getting non-GPO imprints out of them.

Librarians other than depository librarians are not conscious enough of the meaning of the term "available" when it refers to their own users. They should be sending their users to the depositories in their district and insisting that the depositories serve them. If the depository refuses to do so, the citizen and the librarians should complain to the district's Congressman, to the Superintendent of Documents, and to the Joint Committee on Printing. If a library does not live up to its lawful responsibilities it should give up the depository privilege.

Another way of keeping government publications from being available is by not putting the care of the collection into the hands of a librarian. The term librarian is used cautiously since it does not necessarily mean that the librarian has to have a degree but she/he should be a professional by virtue of long experience or special education and training. It does mean that the person in charge is knowledgeable enough to select and process the documents efficiently; to make them accessible to the public; and to educate the public in how to use the collection. A good job will take more than a few hours a week or a day.

More and more professional librarians are going into documents work as their first choice. These librarians are committed to getting documents to the people. They are organizing and educating themselves so they will do a better job. They are taking their problems and questions right to the source itself, GPO and the Joint Committee on Printing. The Superintendent of Documents is no longer a mysterious and shadowy figure in Washington. He is a real human being and is making himself available at conferences, workshops, and ALA and SLA meetings. He can no longer make a decision without receiving feedback from his constituents, the librarians and library users.

The Superintendent of Documents and the Public Printer were anxious to be available on a continuing basis so they reestablished the Advisory Council to the Public Printer on Depository Libraries in February of 1973.* This group is trying to represent all librarians, libraries, and users, not just depositories in advising the Public Printer as to the needs of depositories. The Advisory Council is preparing position papers in the following areas for presentation on July 6, 1974: 1) Standards for depositories, 2) Microforms, 3) *Instructions to Depositories* (handbook), 4) Bibliographic control. The council will also vote whether to support the proposed revision of the *1962 Depository Law* being prepared by the ALA Ad Hoc Committee on the Depository Library System for submission to the ALA Council in July of 1974.†

The Advisory Council made the decision on January 25, 1974, to make its own meetings "available" to the public by voting to abide by the Advisory Committee Law. This means that

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*Members of Advisory Council are: D. Clifton Brock, Univ. of North Carolina/Chapel Hill; Clifford Crowers, The Free Library of Philadelphia; Bernadine E. Hoduski, U.S. Environmental Protection Agency Region VII; Charles LaHood, Library of Congress; Jean Lowrie, Western Michigan Univ.; Ralph McCoy, Southern Illinois Univ. at Carbondale; Peter Paulson, Univ. of the State of New York/Albany; Catharine Reynolds, Univ. of Colorado/Boulder; Maryellen Hall, Oklahoma Dept. of Libraries; Carper W. Buckley, former Superintendent of Documents; Eileen Cooke, American Library Association/Washington, D.C.; Maryan Reynolds, Washington State Library; Margaret Lane, Louisiana Secretary of State's Office/Baton Rouge; Albert Donley, Northeastern University/Boston.

†These plans were made at the Advisory Council to the Public Printer on Depository Libraries meeting, Jan. 25, 1974 in Chicago, Ill.

the meetings will be listed in the *Federal Register* two weeks before meetings, will be open to the public, and that the council will have to make an annual report.

In attempting to make documents truly available to the public, librarians depend upon bibliographic control. Government publications have seldom been included in total bibliographic control systems. They seldom are included in main card catalogs or book catalogs, union lists, computerized bibliographic systems. A field designating the Superintendent of Documents classificaiton numbers wasn't even included in the original MARC tape system. Cataloging in Publication started including documents in 1973 on a limited basis. The Superintendent of Documents classification number wasn't added to the LC card until early 1971. The Library of Congress presently catalogs some 3000 documents out of 14,000 titles received each year.*

Librarians had to depend upon the *Monthly Catalog of United States Publications*, the *Government Reports Announcements* and agency catalogs. There has never been any single source for bibliographic information about documents. During the last five years commercial companies have tried to fill in the gap with such services as *Checklist of United States Public Documents 1789–1970* and the *Congressional Information Service*. The *Checklist* took the Superintendent of Documents shelf list and made it available through indexing and microfilming the actual shelf list cards. The index is as good as the shelf list of the Superintendent of Documents. There are a tremendous number of documents that never made it to the staff of the Superintendent of Documents and therefore are not included in their shelf list. The *Congressional Information Service* covers only the area of Congressional hearings, reports, and documents and does an excellent job indexing it.

It is obvious that there is no one assuming the responsibility of coordinating the efforts of all those cataloging, indexing, and listing government publications. The ALA Ad Hoc Committee on the Depository Library System is suggesting that the *1962 Depository Law* be revised to say:

*Information from speech given by Alma Mather of the Library of Congress at the Federal Documents Regional Workshop, April 14, 1973, Kansas City, Missouri.

> The National Depository Library should provide the depository library network, libraries in general, and the public with complete bibliographic control of all publications produced at government expense. This bibliographic data should be made available for inclusion in any other regional or national library network.[4]

It is very difficult to know which libraries have which publications. Even the new *National Union Catalog of U.S. Government Publications Received by Depository Libraries, First Edition 1973*, published by the Carrollton Press, is not dependable even though based on GPO's records, because GPO's records do not indicate who has discarded what. Keeping track of which documents are still in the collection is especially difficult for those libraries that disperse the documents throughout the collection. There are some states and areas which are compiling union lists of documents.

In order to protect the depositories from all having to make all government publications available forever the 1962 law provided for establishing two regional depositories in each state. Local depositories can dispose of unwanted publications with permission of the regionals after 5 years. In order to protect the citizen-user the regionals must permanently keep one copy of all depository publications. The citizen can still borrow these publications through his local depository. Maintaining these publications and providing reference service to the local depositories puts a financial burden upon the regionals. This financial burden gets in the way of the free use of the general public. This is especially true when the regional must replace paper copies with microforms and has to purchase equipment to make the microforms available to the public. The ALA Ad Hoc Committee on the Depository Library System being aware of the needs and responsibilities of the regionals is recommending the following change in the depository law to the ALA Council:

> Regional depositories should continue to be charged with (a) receiving and retaining at least one copy of all federal government publications made available to depositories, and (b) providing local depository libraries with interlibrary loan service, reference service, and assistance in the disposal of unwanted documents. In addition, the regional depository libraries should assume the responsibility for conducting periodic inspection of depository libraries in their areas to insure compliance with national standards.

> Regional depository libraries should also provide advisory services and training programs to local depository libraries requesting them.
>
> In order to carry out these responsibilities the regional depositories should be provided with federal funds, on a formula basis, which should include such factors as number of libraries in the region, type of libraries in the region, distance involved, and actual dollars expended in performing legal responsibilities.[5]

The proposed revision of the law means more responsibility for the regionals. Hopefully, the promise of money and real power of inspection may stimulate someone to take on the job of regional in areas where there are none now.

It is interesting to note in a breakdown of the kinds of libraries who have chosen to be regionals that over 50% of them are university libraries. Only 13 state libraries and 5 public libraries versus 23 university libraries took on the burden of being a regional.[6] Even though it seems logical that a state or public library would be more atuned to serving the general public this is not necessarily the deciding factor in becoming a regional. The existence of good retrospective collection (or the desire to create one by utilizing the discards of local depositories), adequate space, personnel, and budget would be more important than a commitment to serving the public. Many universities do look upon themselves as serving all the citizens of a state. (See complete breakdown of local and regional depositories by state and kind of library at the end of this article.)

If the regionals are to inspect depositories in their region they will need help in judging whether a depository is doing its job or not.

The ALA Ad Hoc Committee on the Depository Library System is recommending that:

> National standards of performance which all depositories must meet to obtain or continue depository status should be established by the Council on Depository Libraries and administered by the National Depository Library.[7]

The concept that regionals would actually have the power to inspect local depositories in their region makes the ALA Committee proposal of a "comprehensive network of local and regional depositories, with a national federal depository library at the head of the system,"[8] a viable one. A working network with power distributed throughout results in real person to person, librarian to librarian peer pressure. No longer will a depository wait 20 years or more for its first visit from someone who knows what good library service is. If the depository is not giving good service it can turn to the regional and ask for advice and training so it can live up to the standards.

GPO has officially inspected very few libraries through the years. During the last three years visits have been made when a member of the GPO staff happened to be in town. It 's only during 1974 that a planned series of visits have been made to all the depositories in a specific geographic area. The Chicago area was one of the first areas to be thus inspected in January 1974. It is impossible for the staff of the Superintendent of Documents to visit all 1139 libraries on a reasonably regular basis without some help from the regionals. Even on a four year schedule, visiting some 284 libraries a year, it would still be a horrendous task. Better to inspect the regionals every year and to use that opportunity to bring in all the librarians from the local depositories for a training session and visit with the inspector from GPO. Each year all the depositories in several regions could be inspected on a complete basis.

The concept of a national network also implies that information will be equally available to all the users of the network. This means that the regionals will probably have to resort to microform to live up to their responsibility of permanently maintaining one copy of all government publications. They must make these microform copies available to the local depositories. This can be very difficult if the local depositories cannot afford equipment to read and print out the information from the microforms. The ALA Committee's proposed revision of the *1962 Depository Act* says that, "Depository libraries should be offered, at no cost to them . . . equipment needed to insure easy and efficient access to publications in microform."[9]

As of this time (February 1974) the GPO micropublishing program is still in the study stage according to the Public Printer:

> Since this is a new media for the Government Printing Office, we intend to approach the distribution of microform with caution. We expect to develop our procedures and methods through sampling and pilot studies with the Depository Library Community.
>
> To determine if there will be sufficiently wide interest, at least in the library community, to distribute microform copies, we are contemplating the following actions:
>
> **a** Screen the depository libraries once again for interest/utility for specific categories of publications in microform.
>
> **b** Evaluate the returns from the depository libraries to determine if there is a sufficient requirement for microform production.
>
> **c** After this evaluation, request permission of the Joint Committee on Printing for a small sample of publications to be produced in microform by commercial contract for distribution by this Office.
>
> **d** After this pilot procedure, and if it proves satisfactory, plan for the expansion of the program to other depository categories.
>
> As you know, section 1909 of Title 44 requires that the designated depository libraries report to the Superintendent of Documents at least every two years concerning their condition. The next questionnaire for such reports is now in preparation. To initiate the action proposed above, we plan to include as part of this questionnaire appropriate survey material to accomplish steps (a) and (b) above. If interest is indicated, authority of the Joint Committee of Printing will be requested to proceed with the intent of step (c).*

The implementation of a good, bibliographically controlled microform program would be simply another way of making "government publications available for the free use of the general public." (44 *U.S.C.* 1909) Regional depositories could invest in microfiche reproducers and send the actual fiche to

*Letter from Thomas F. McCormick, Public Printer, Government Printing Office, November 12, 1973.

the local depositories. This would save the regional money in postage, extra work in packaging, and would speed up interlibrary loan considerably. With a microfiche reproducer the regionals could give away the fiche rather than ask for its return. Even though government publications are not protected by copyright, the commercial micropublishers would probably object to this procedure done on a massive scale. The local depositories would have to purchase mini-readers, reader-printers and storage equipment to really make use of such services for their local citizen-users.

When the Public Printer asked the Advisory Council whether "the depository library system is really the best system at all or whether it is even a good one,"[10] he was asking an admittedly biased group since all of the members are librarians. Nonetheless, it is this group, along with other groups of librarians that has been most insistent that depositories live up to the standards (meager as they are) already implied in the law and that librarians themselves define good service to citizen-users before someone else does it for us. Librarians should not only define good service but should insist that their fellow librarians implement it or give up the privilege of being a federal depository.

Regional Depository Libraries[11]

States and Territories with No Regional Libraries

Alaska, Arkansas, Canal Zone, Delaware, District of Columbia, Georgia, Guam, Hawaii, Kansas, Mississippi, Missouri, Nebraska, New Hampshire, Puerto Rico, Rhode Island, South Carolina, South Dakota, Tennessee, Vermont, Wyoming (special)

States With Two Regional Depository Libraries

Arizona, Colorado, Louisiana, Michigan, New Mexico, Texas, Wisconsin

States and Territories Ranked by Total Number of Depository Libraries

California 85, New York 69, Ohio/Texas 49, Pennsylvania 46, Illinois/Michigan 43, New Jersey 34, Florida 30, Indiana/Massachusetts/North Carolina 29, Wisconsin 28, Virginia/District of Columbia 26, Alabama/Missouri 24, Georgia 22, Louisiana 21, Minnesota/Tennessee 20, Oklahoma 18, Colorado/Kentucky/Maryland/South Carolina 17, Iowa/Connecticut/Washington 16, Kansas 15, Oregon 14, Arkansas/West Virginia 13, Nebraska 12, Hawaii/Maine/Mississippi/North Dakota/Utah 10, Arizona/Idaho/Rhode Island/South Dakota 9, New Hampshire 8, New Mexico/Wyoming 7, Montana 6, Alaska/Delaware 5, Nevada/Puerto Rico 3, Canal Zone/Guam/Virgin Islands 1.

Type of Location of Regional Depository Libraries in States and Territories

In the following list, the number of depositories is shown first. The suffixed letters designate what kind(s) of library is (are) regional depositories, i.e., *A*—University library, *B*—State Library, *C*—Public library. Michigan, e.g., has two regional depositories (the State Library and a public library), indicated by the letters BC. Wyoming is served by Denver Public Library.

Alabama 24A, Alaska 5, Arizona 9AB, Arkansas 13, California 85B, Canal Zone 1, Colorado 17AC, Connecticut 16B, Delaware 5, District of Columbia 26, Florida 30A, Georgia 22, Guam 1, Hawaii 10, Idaho 9A, Illinois 43B, Indiana 29B, Iowa 16A, Kansas 15, Kentucky 17A, Louisiana 21A(2), Maine 10A, Maryland 17A, Massachusetts 29C, Michigan 43BC, Minnesota 20A, Mississippi 10, Missouri 24, Montana 6A, Nebraska 12, Nevada 3A, New Hampshire 8, New Jersey 34C, New Mexico 7AB, New York 69B, North Carolina 29A, North Dakota 10A, Ohio 49B, Oklahoma 18B, Oregon 14A, Pennsylvania 46B, Puerto Rico 3, Rhode Island 9, South Carolina 17, South Dakota 9, Tennessee 20, Texas 49AB, Utah 10A, Vermont 8, Virgin Islands 1, Virginia 26A, Washington 16B, West Virginia 13A, Wisconsin 28AC, Wyoming 7 (special)

Totals: 23 university libraries, 13 state libraries, 5 public libraries.

Notes

1 Minutes of the meeting, June 28, 1973, Advisory Council to the Public Printer on Depository Libraries, Las Vegas, Nevada, p. 39–40.

2 U.S. Congress, Joint Committee on Printing, *Government Depository Libraries* (Washington, D.C.: Government Printing Office, 1973), Joint Committee Print, 93d Cong., 1st sess., p. 3.

3 ALA *Report of the Ad Hoc Committee on the Depository Library System* [Submitted to ALA Council for approval and publication after July 1974 convention.]

4 Ibid., p. 1.

5 Ibid., p. 1, 2.

6 Maryellen Hall, "Regional Depository Library," DttP 1, no. 2, (December 1972): 18.

7 *Report of the ALA Ad Hoc Committee*, p. 1.

8 Ibid., p. 1.

9 Ibid., p. 2.

10 Minutes of the meeting, June 28, 1973, Advisory Council to the Public Printer on Depository Libraries, Las Vegas, Nevada, p. 39, 40.

11 Hall, p. 18.

Government Information Services:
or, Of Needles and Haystacks

Evelyn M. Fass

[An overall analysis of the present bibliographic control furnished by the *Monthly Catalog*, *Government Reports Announcements*, *Nuclear Science Abstracts*, and *Scientific and Technical Aerospace Reports*.]

In this excellent paper Mrs. Fass has written primarily from the viewpoint of the sci-tech user but her criticism that the coverage of the major indexing and announcing services is unpredictable presents problems for the citizen user and the public and academic librarian as well.

The efforts of the National Technical Information Service in its public access mission have been excellent, those of the Government Printing Office less so. (The GPO has in the past not had an aggressive policy in seeking better programs from the Congress.) Mrs. Fass states succinctly the essence of the bibliographic problem when she says NTIS and the GPO handle whatever comes their way. There is no overall plan for bibliographic control in the sense I defined it in my general introduction. We're still drifting.

C. C.—Editor

Let us define bibliographic control as the capability to identify, to describe, and, ideally, to point the way to acquisition of a publication from a number of retrieval points. In the scope of this article, we will explore the effectiveness of such control in the four secondary publications which are the major vehicles of announcement to the general public and especially to the large "sci-tech" user audience.

> . . . if this fails it matters not that physical access is established, because delivery is not achieved, or is useless, or is overwhelming . . .

Evelyn Fass is Assistant Librarian for the Institute for Defense Analysis.

> Most developments and most of the publicized "breakthroughs" in "information retrieval" have occurred, not in the betterment of intellectual (or bibliographic) access, but in so-called physical access, the delivery of the record, or at least leading the inquirer to the record, so that he has not only evidence that information exists but the very information itself.[1]

The four bibliographic services to be discussed here are all products of the Federal Government. They are: *Nuclear Science Abstracts*, (NSA), *Scientific and Technical Aerospace Reports* (STAR), *Government Reports Announcements* (GRA), and the *Monthly Catalog of United States Government Publications* (*Monthly Catalog*).

Much has been written about the Government Printing Office and its enabling legislation. If the letter of the law (from the Printing Act of 1895 to the Government Depository Act of 1962) had been adhered to, we would not now be talking about STAR, NSA and GRA in addition to the *Monthly Catalog*. We would be discussing instead one total bibliographic control and document distribution service which would encompass all the Government or Government contractor-produced publications.* The situation is, however, that things have evolved in another way.

As research and development in science and technology proliferated in World War II, the mechanism to control the resulting report literature began to develop within the Defense establishment. The Office of Scientific Research and Development under the National Defense Research Council coordinated our wartime research and managed the control and dissemination of the studies it generated. To manage the declassification of this material, the Publications Board was set up. After the new developments were no longer defense secrets, the Office of Technical Services (OTS), established in the Department of Commerce in 1946, was given the responsibility to make these technical advances available to industry. Out of this grew the Clearinghouse for Scientific and Technical Information (Clearinghouse or CFSTI), which had the broader mission of announcing and distributing the scientific and technical reports

*Such a service is VINITI, the USSR's All-Union Institute of Scientific and Technical Information. Its more ambitious aim is to process and disseminate to its own people *all* of the world's sci-tech literature.

which were available to the general public from all agencies of the Federal Government. The Clearinghouse became a part of the National Technical Information Service (NTIS) when it was established in 1970, and the name of its publication was changed in 1971 from *U.S. Government Research and Development Reports* (USGRDR) to *Government Reports Announcements* (GRA) and *Government Reports Index* (GRI).

The Atomic Energy Commission (AEC) manages its bibliographic control of documents by way of its Division of Technical Information Extension (DTIE). NASA—the National Aeronautics and Space Administration—since its establishment by the Space Act of 1958 has developed the NASA Scientific and Technical Information Facility (STIF) based on a program of NACA—the National Advisory Committee for Aeronautics. This facility produces Scientific and Technical Aerospace Report (STAR) which "abstracts and indexes report literature on the science and technology of space and aeronautics."

Both NSA and STAR are mission oriented services, established to cover well-delimited subject areas, and blessed with good thesauri. GRA, more and more a catch-all, has its problems, which we shall discuss further.

The Government Printing Office continues to print and distribute documents originating in the Federal Government. Some of the Executive Department agencies (most notable the Bureau of the Census, the Departments of Labor, State, and Interior[2]) use GPO for production and dissemination of all their publications. Others make use of the other large national distribution systems or one of the smaller specialized services. Some are used for announcement only, others for delivery only, some for both.

Since the passage of the Printing Act of 1895 there has existed a requirement that there be delivered to the Superintendent of Documents a copy of each publication produced at the Government Printing Office, plus a copy of every non-confidential document issued or published by each executive department, independent agency, and establishment of the Government (44 U.S.C. 1710) This 1895 act was passed with the intent that the GPO should be the sole indexer and distributor of such documents. This language from the Depository Act of 1962 (44 U.S.C. 1902) reconfirms that original intention:

> Each component of the Government shall furnish the Superintendent of Documents a list of publications, [except those required for official use only or those required for strictly administrative or operational purposes which have no public interest or educational value and publications classified for reasons of national security], which it issued during the previous month that were obtained from sources other than the Government Printing Office.

Nevertheless, although the law also requires that the Superintendent of Documents shall publish a "comprehensive index of public documents," we find in a recent ALA statement: "the Superintendent of Documents recently stated that 85% of these non-GPO publications fail to appear in the *Monthly Catalog* due to the fact that the issuing agencies do not provide copies of them to GPO for cataloging."[3] This of course does not mean that all of the non-GPO documents are not under some bibliographic control. They are simply not indexed in the *Monthly Catalog*. There *is* no comprehensive index of public documents.

The other large clearinghouse organizations have come on the scene, the result either of a special subject interest or of the desire to expedite material to a particular clientele. So we have not only the three basically sci-tech oriented services described above, but also announcement services in other specialized subject areas, for example: *Index Medicus* of the National Library of Medicine, *Bibliography of Agriculture*, from the Department of Agriculture, and the announcement, abstracting, and distribution services of the Educational Resources Information Center of the Office of Education (ERIC).

There is overlapping coverage. There are also omissions. The information explosion exists within the Federal Government no less than it does without, so it was no surprise to hear that ". . . no source in the Government knows all of the products and services being produced."[4] There is probably no practical-minded librarian or information scientist who will believe that the GPO, only now gingerly emerging into the world of computer indexing and micropublishing, unwilling or unable to get from Congress enough money and a strong enough cudgel, can overtake and absorb the established information services. Pragmatists as well as idealists, librarians operate in the existing information environment, and work to make it better.

Descriptively, none of the four services we are considering is precisely the same as another. The matrix in figure 1 is an attempt at graphic presentation for a side-by-side comparison of how they coincide and how they differ. It may be useful for reference as we discuss them sequentially here.

NSA

Nuclear Science Abstracts does not limit itself to announcing U.S. Government-generated report literature in its field. ". . . In addition, books, conference proceedings, individual conference papers, patents, and journal literature on a worldwide basis are abstracted and indexed."* Abstracts are provided by the national authority for atomic energy in the other governments, to substantiate AEC's statement that *Nuclear Science Abstracts* provides the only comprehensive abstracting and indexing coverage of the international nuclear science literature. A cumulated index is produced once a year, except for report number indexes which are cumulated on a calendar year basis every two volumes. There are also five-year cumulations of each of the four index categories. The subject index consists of specific materials, objects, and processes. Abstracts are grouped under 22 broad subject headings, subdivided within these by several sub-headings. The abstracts as so arranged are given consecutive abstract numbers from the first to the last in each issue of NSA. There are "see also" references to related documents at the head of each subject group. Keywords are assigned in accordance with the thesaurus of the International Nuclear Information System (INIS). The INIS thesaurus has grown by about 500 keywords per year to the present level of about 16,000 keywords.[5] Subject headings are also used, in accordance with a DTIE† subject heading authority list, to which about 800 new headings are added each year.

Data elements entered into the machine-readable data base can number to 34 for each record. The data base is being improved to permit on-line input and modification of records.

*Introduction to a recent issue of NSA.

†Division of Technical Information Extension, which manages bibliographic control for the Atomic Energy Commission.

Figure 1 Comparative Table

	Monthly Catalog	GRA	NSA	STAR
Coverage				
Limited Distribution				
Theses				X
Translations		X	X	X
Patents		X	X	X
Technical reports		X	X	X
Open Distribution				
Monographs			X	
Journal articles		X	X	X
Conference papers		X	X	X
Government publications	X		X	X
Content of Record				
Bibliographic description	X	X	X	X
Abstract		X	X	X
Analytics		X		X
Acquisition information	X	X		
Indexes				
Corporate author		X	X	X
Author	X[1]	X	X	X
Title	X[1]			
Subject	X[1]	X	X	X
Report number		X	X	X
Contract number		X		X
Combined[2]	X			
Formats Available				
Hard (paper) copy	X	X	X	X
Microform cumulation	X[3]	X		
Machine-readable tape		X	X	X
On-line search system		X	X[3]	X
Frequency				
Single issues	Monthly	Bi-weekly	Semi-monthly	Semi-monthly
Index cumulations	Annual; 5 years	Annual	Annual; 5 years	Annual

Figure 1 cont.

Average Announcement Delay Time	2 months	2-3 months	2 months	2 months
Thesaurus Used		TEST	INIS	NASA
Abstracts				
Indicative		X	X	X
Informative		X		X
Author-written		X	X	X
Subject authority-written		X	X	X

1 From January 1974

2 Subject, author, title, issuing agency in one index prior to 1974

3 Limited

AEC DTIE offers a computer search service called RESPONSA, as well as an on-line search service for recent files called AEC/RECON. Distribution of tapes to outside facilities is still experimental and limited. The hard copy NSA appears twice a month, and is distributed to Federal libraries and to some research institutions and universities on an exchange basis. It is sold to the general public via GPO.

NSA, like STAR, has received consistently high praise from the special librarians surveyed. It has been labeled the prime source within its subject area, complete in its bibliographic information, and accurate as well. Indexing style has remained consistent over the years since its beginning in 1948. This consistency in picking up the entries throughout the series assures success in the use of NSA computer tapes for in-house selective dissemination of information in the facilities that use them.

The pattern of index cumulations has had a more reliable frequency than that of other services; NSA's annual cumulations appear the earliest; its five year cumulations appear dependably with little delay. It is the only one of the four services being examined here which provides a multiple-year

cumulation in hard copy.* There are no complaints over the fact that NSA has only four indexes: corporate author, personal author, subject, and report number. The absence of a contract number index to contractor reports is not viewed as a serious omission, since AEC's contractors are far fewer in number than, for instance, the Department of Defense or NASA.

STAR

Scientific and Technical Aerospace Reports is another service which gets good marks from the users in the special library community for its consistency in indexing and adherence to its excellent thesaurus. Its format is legible, its five indexes are clear and easy to use. Like NSA, STAR is intended to cover worldwide literature in its subject. It divides this responsibility with *International Aerospace Abstracts* (IAA). That service, produced by the American Institute of Aeronautics and Astronautics, "provides parallel coverage of scientific and trade journals, books, and conference papers in the same subject areas as STAR. STAR and IAA are categorized and abstracted in basically identical ways, and documents in both are indexed by terms from the *NASA Thesaurus*."† The major input is abstracts of reports from NASA and from recipients of its contracts and grants, but important documents from a subject point of view are included from other sources, including "literature received through exchange agreements with foreign aerospace-related organizations."[6]

The *NASA Thesaurus* has not remained static since its compilation in 1967. Two hundred new terms are added each year. There are presently about 17,000 terms in the working thesaurus. While not all the data elements appear in the printed service, NASA's Scientific and Technical Information Facility reports that over 40 data elements are entered in the data base for each document processed; the average number of indexing variables per machine search query is 33. Interactive search

*NTIS is marketing subject and corporate author abstracts of GRA in four-year cumulations on 8mm. microfilm, through Princeton Microfilm Corp. GPO has not produced a cumulative index of the *Monthly Catalog* since 1950.

†Introduction to a recent issue of STAR.

from remote consoles is available in the NASA/RECON system; tapes are available for SDI.* Current awareness service is provided in *Selected Current Aerospace Notices* (NASA/SCAN) which categorize STAR and IAA announcements under 186 individual topics for selective dissemination. The hard copy index and abstract service (STAR) appears semi-monthly, alternately with IAA,† and it is cumulated semi-annually as well as annually. Qualified users may receive STAR free of charge, as well as copies of most available documents, directly from NASA. The general public may subscribe to STAR via GPO and may purchase the announced documents in paper copy or microfiche from NTIS. Certain selected documents are published and sold by GPO, though these too are announced in STAR.

GRA and GRI

Government Reports Announcements and *Government Reports Index* are produced by NTIS, whose greater problems are based in its view of its greater mission:

> NTIS has a dual responsibility: to coordinate the business and technical information activities of the Department of Commerce, and to serve as the primary focal point within the Federal Government for Federal publications and data files. NTIS collects, processes, announces, and disseminates unclassified, government-supported technical reports, translations, and data and provides selected references and referral services.
>
> . . . NTIS services are available to government, industry, and the general public. The more than 150,000 users represent all levels, from student or bench researcher to management.[8]

**Selective Dissemination of Information.* The SDI package was developed for use with any DDC magnetic tape products as input. Originally designed to provide current awareness bibliographies, SDI may be employed by a user in his own installation. For instance, a user with the *R&D of the 1960's* magnetic tapes and the SDI package could make his own bibliographic searches. The seven-program SDI system, consisting of program cards, thesaurus tape, and a complete system manual, is available without charge to subscribers of DDC magnetic tape products.[7]

†STAR appears on the 8th and 23rd of each month; IAA on the 1st and 15th.

> . . . we agree that complete, current bibliographic and subject indexing of Government documents not elsewhere indexed should be first priority, and it is—at NTIS . . . No law or directive has yet been published by either the Congress or the OMB to require the input of scientific and technical Government documents to NTIS. However, NTIS has been methodically contacting agencies, office by office, bureau by bureau, in order to increase the regular, automatic, and timely input of documents into the NTIS system.[9]

The major difficulty is summed up in this critical quotation:

> The Clearinghouse (now a part of NTIS) has perhaps been asked, too hastily, to do too much. One has the feeling that this hurried expansion was imposed upon it so that it could serve as a cashier to take care of the necessary payments for documents rather than for reasons connected with the intellectual organization of information.
>
> Whatever the reason, it is a fact that its function has become blurred and this has weakened the other government-sponsored services too.
>
> . . . If a collection itself is not a rather clearly defined body of literature, then its catalog, no matter how painstakingly and expertly done, is not one we can turn to for help with our own clearly defined needs.[10]

The Department of Defense, by regulation, directs that copies of its technical reports be deposited with the Defense Documentation Center (DDC Instruction 5100.38, March 29, 1965).[11] Unclassified/unlimited reports are re-routed to NTIS and are announced in GRA as documents available to the general public. NTIS receives these documents from DDC; accepts the abstracts provided by the authors, or provides abstracts where necessary; indexes them, using a vocabulary provided by DDC, plus keywords from *Thesaurus of Engineering and Scientific Terms* (TEST),* and new descriptors added by NTIS as needed to keep up with the new technology; and enters them in its data base.

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*The *Thesaurus of Engineering and Scientific Terms*, "first edition," was published by the Engineers Joint Council in 1967 as a revision of its 1964 *Thesaurus of Engineering Terms*. In 1967 it was also published jointly by EJC and the Dept. of Defense as AD 672 000. TEST is referred to by Mr. Throtl on page 48 of his article.

There is duplication of announcements, since input tapes accompanying documents for distribution are received from NASA, AEC, and other Government sources which produce their own subject bibliographies. Keywords from seven separate thesauri represent documents in the NTIS machine-readable data base.

In the area of the social sciences, we find that while it is strong in urban affairs, transportation, and international relations, GRA is not counted on for complete coverage of medicine, statistics, agriculture, and economics. Incompatibility of vocabularies from various disciplines causes confusion in the index. In this regard, one social science librarian who was contacted pointed out that the sci-tech orientation of the abstractors makes it difficult to find the more economic-oriented reports, and that much Government-sponsored research in her field has yet to be included. Some of these gaps are filled by other special indices from other sources, such as *Research in Education* (RIE) funded by the U.S. Office of Education (documents it announces are sold by ERIC) and *Bibliography of Agriculture*, from the U.S. Department of Agriculture. Commercial bibliographic services supplement and improve our access to specialized information. For example, Public Affairs Information Service indexes and gives careful acquisition information in its subject field, including items we cannot always locate via one of the Federal services; Congressional Information Service is invaluable for its in-depth indexing of Congressional documents.

Within each issue of GRA the abstracts are arranged by the twenty-two COSATI (Committee for Scientific and Technical Information of the Federal Council for Science and Technology) subject categories and subdivided thereunder. In each subdivision they are arranged in order of document accession number, with the accession series in alphanumeric order: AD numbers for the documents received via DDC, N-numbers from the NASA tapes, PB numbers for the large proportion of direct input documents, and items from other agencies where their series numbers fit the sequence.

GRA and GRI* are issued bi-weekly (a new improvement) and

*There are five indexes in GRI: Corporate author, Author, Contract number, Subject, Report number.

cumulate quarterly, semi-annually, and annually. The subject index and corporate author index are now available on film in longer cumulations. *Weekly Topical Announcements* cover forty different subject fields, and are sold in separate subscription series for the benefit of business and industry.

In addition to the hard copy GRA, NTIS sells a tape version of its data base for organizations wishing to run it for in-house SDI. A bibliographic search service, NTISearch, is offered providing bibliography and abstracts to fill specific requests. On-line interactive bibliographic search is possible also, via several commercial services. Effectiveness of this mode depends on the experience of the user. The initiated indexer/searchers operating this data base from NTIS use a combination of COSATI subject category numbers, DDC subject headings, TEST descriptors, descriptors from the thesaurus of the particular subject field (such as NASA's or AEC's thesaurus), plus any special indicators their experience in previous searches might suggest, and end up with satisfactory bibliographies for their NTISearch users. The results for an individual operator working from his on-line terminal are likely to be discouraging until he, too, has learned his way in this maze.*

Discussion of GRA's effectiveness, includes some recent history. In 1969, the Committee on Information Hang-ups (CIH) was formed by a group of special librarians—Government and non-Government—in the Washington area, to define their problems as major users of certain Government information services and to communicate their needs to the producers of those services.

A user-producer dialog began which has been very fruitful. To their credit, some directors of such services welcomed the constructive criticism, and warmed to the concept of the "user group."[12]

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*NTIS is compassionate. Forthcoming in about a year will be an *Associative Retrieval Guide*, in which variations of a discriptor will be clustered under one term. Also, they intend to publish soon some search formulations to guide the new user.

	Identification	Acquisition	Cataloging Authority-Format	Cataloging Authority-Subject
USGRDR	Good	Good	Improvements proposed Good	Good
TAB	Good	Good	Good	Good
NSA	Good	Good	Good	Specialized
STAR	Good	Fair	Good	Poor
Monthly Catalog	Poor	Fair	Poor	Impossible

[The *Monthly Catalog* badly needs a cumulative index. There has been none since 1960.—Editor]

Figure 2 Comparative Ratings

After the CIH report[13] and the LARTIUC report[14] some useful improvements were made in response. In 1971, a follow-up assessment of the improvements in bibliographic effectiveness of five services was made by a subcommittee of CIH.[15] (Figure 2 is a copy of their rating chart.) In it they say, ". . . the Clearinghouse has proven to be the most receptive of the Government agencies to vox populi, . . . Of the nine suggestions for clarifying entries and improving their arrangement in the Index, all seem to have been adopted." Some of the changes are: the corporate author index has been improved; the format of the abstract entries has been changed so that accession numbers appear in bold print at the beginning rather than at the end of each entry; the numbering of the major series (AD, PB) appears on the spine of each issue; and the name of the publication has been changed from *U.S. Government Research and Development Reports* to *Government Reports Announcements* (GSA).

Last year, unfortunately, NTIS found it necessary to drop the rainbow colors used for the five indexes bound together; we should be glad they were able to give us, for a substitute, alternating sections of buff and white.

In October 1971, NTIS paid CIH the compliment of asking for opinion on how to absorb a cut in operating budget without hurting its users. In its reply, the Document Procurement Subcommittee of CIH zeroed in on NTIS's bibliographic services.[16] The major charge was that GRA's coverage was too broad for a single index. They also pointed out that there is overlapping with other indexes, the coverage is unpredictable, the NTIS announces some publications it does not distribute, bibliographic entries are inconsistent, and there is a multiplicity of numbered series. They stated:

> We do not know what is in it [GRA] or what is not in it. Contents are not limited by subject or source, nor identified by a unique numbering system; and there is duplication of material indexed elsewhere. Searching and ordering procedures are therefore tedious and time consuming.
>
> The inclusion of AD, NASA N- and AEC numbers has added to the confusion. We once knew where to find these reports. Now we must search three overlapping indexes. Equal uncertainty is caused by overlapping functions. We do not know who is responsible for indexing and announcing specific reports. Why must we go to TAB, and GRI, and the USGPO *Monthly Catalog* to locate an Army Area Handbook?
>
> The use of computer tapes from other information centers, as NTIS now uses them, makes an index that is too big and too inconsistent in bibliographic form. Five corporate author headings for one facility, where a single heading would do, tax the patience of the user. The sheer bulk of the indices not only creates, but magnifies the importance of small errors, inconsistencies, and omissions.*

The solution that the CIH subcommittee offers is an untangling of all this into separate index journals with similar formats, which they feel can be divided roughly along the lines of divisions among Government departments. Adequate subject indexing would be provided by "centers of competence" already existing in each subject area to function as secondary services which provide index tapes to NTIS for publication. NTIS would continue to film, store, and sell the documents. This would be consistent with the goal of national information centers in subject disciplines, ". . . but we are moving toward

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*Now that the NTIS data base is available for interactive user-computer search via several commercial on-line systems, this inconsistency of bibliographic form is an added headache, and it hurts all the more because we are paying more to use it.

a national service that seems quite unplanned, with NTIS handling as best it can whatever comes its way, just as the USGPO has done for years."[17] No statement has been issued by NTIS in reply to the CIH subcommittee's suggestions.

In line with the point of view that GRA has greater value to a greater number of users as an announcement medium than as a retrospective search tool, NTIS announced that they were considering the discontinuance of the annual cumulations of GRI. The consternation among librarians was great. It probably was a factor in the decision not to discontinue. It is hoped that budget problems won't lead to a return to this idea in NTIS.

Monthly Catalog

> How can it be that in this year of the Lord 1973 we have a GPO bibliography as poorly done as the *Monthly Catalog*? If it was possible to get a first-class STAR, an admirable DDC TAB, and other exemplary bibliographic periodicals for research reports, why must we be damned to all eternity with an absolutely disgraceful *Monthly Catalog*?[18]

> In brief, it is an index based on key words, titles, subjects, issuing agencies, personal authors, the first words of titles, etc. . . . not consistently employed. . . . In particular, Congressional publications are usually based on a lump heading only . . . .[19]

This author also refers to the necessity of supplementing the *Monthly Catalog* with PAIS, CIS Index. "along with a host of agency-produced bibliographies and checklists . . ." many of which lack GPO identifying numbers for acquisition of the documents.

Writing in November 1973, Welington H. Lewis, the new Assistant Public Printer (Superintendent of Documents), reflects the concern of the Committee on Printing and the Public Printer for the extent of GPO's problems saying, "we are not selective in the cataloging of publications; procurement is the main problem we have in preparing the *Monthly Catalog*. . . . Response to this directive (44 U.S.C. 1710) has not been extensive."[20]

The greatest failing of the catalog lies, of course, in its omissions. This monumental inadequacy dwarfs any concern

of its users over the quality of the indexing. It has been as it is for so long that librarians know exactly how much they can get from the index and how much from the categorical arrangement of the document listings themselves.

Publications can be identified in the index by source, by the major keyword in the title, sometimes by series and sometimes by personal author. Document listings are arranged alphabetically by issuing agency, or department, or Congressional committee. Within these, some items are in series order, some in alphabetical order by title. Each record includes a symbol to show whether the publication (1) may be found in depository libraries, (2) was published for official use only and is not available for distribution, (3) is for sale by NTIS or some other office other than GPO, (4) can be purchased directly from GPO (includes price), and (5) can be purchased in michofiche or in hard copy. There are no abstracts.

We are told we are about to see great improvements, as the indexing—heretofore totally manual—will now be computer assisted, and a three-section index will replace the single index. We should not be ungrateful. This does help. It means there will not be a two month wait while GPO file clerks merge the monthly index entries into a single alphabet at the end of each year, and the December issue may come out on time. One feels, however, that the mountain has labored and brought forth a mouse. To parallel computer parlance, we have put the same old index in, and got the same old index out—albeit in three parts. What librarians have been asking for is not yet here—a hierarchical subject index, a thesaurus of standardized index terms, more subject retrieval points, more cross references, and some consistency in retrieval points to give us some dependable access to what GPO does manage to procure and index.

These are the categories of publication sources from which we may expect to find entries in the *Monthly Catalog*: (1) Congressional, (2) Presidential (Executive office, Commissions), (3) Executive departments, plus some contractor reports, (4) Independent agencies, plus some contractor reports, (5) Judicial.

Relatively, its most comprehensive coverage is of Congressional documents. Most of the non-confidential Congressional

hearings and reports are included; Committee prints, etc., are listed at the discretion of the issuing committee. Congressional material, like the rest of GPO's production, is printed in quantities specified by the originating office. Conscious of higher costs, committees are ordering the printing of fewer copies than they once did. Items which are not available for purchase from GPO are usually available to those of us in the Washington, D.C. area from the House or Senate Documents Room at the Capitol, or direct, on a phone call to the issuing office. Committee reports and Committee prints—often highly useful publications—are produced in such limited supply that they are not available by the time the announcements appear in the *Monthly Catalog*.

Hearings are likely to provide a table of contents listing the testimony of witnesses before a Committee; some are indexed in limited fashion, more are not. How often we have wished to see analytics provided to lead us to the valuable facts and opinions buried within these documents. Congressmen, too, have admitted to great difficulty in keeping themselves informed of background information relating to pending bills. There was some hope of help in a proposal (not accepted by the Congress) by a well-qualified organization of military historians* to provide a periodic indexing service to defense-related Congressional documents. Not long thereafter, an independent commercial company expanded on the idea by providing an index to all Congressional publications and selling it to a grateful public.† Now only four years later, librarians wonder how they have ever lived without it. The format is excellent, there is very little that they miss in indexing, and the disciplined four-way index gives us a good chance to find our material with a minimum of clues. Acquisition problems may be solved too (for a sum), since CIS has microform copies of all the documents it has indexed.

Though many of them appear in the *Monthly Catalog*, Presidential documents are covered most completely in the Federal

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*Defense Memory System; a quarterly compilation of legislative abstracts on national defense. Prototype issue, June 1965, Historical Research and Evaluation Organization, 2301 Gallows Road, Dunn Loring, Virginia 22027.

†Congressional Information Service, 600 Montgomery Bldg., Washington, D.C. 20014.

Register and the Weekly Compilation of Presidential Documents; most librarians tend to rely on these sources instead.

Executive departments and independent agencies tend to avoid submission of documents to GPO. The law requires that they foot the bill for the cost of printing. Listing with GPO means greater printings to cover depository libraries' selections; also, costs are relatively high for short-run printings, since GPO equipment is designed for larger printing jobs. Short runs are often contracted out by GPO, thus incurring more delay time as well.

Government and commercial services such as the *Federal Register* and *Commerce Clearing House* together furnish good bibliographic control of publications of the Judicial branch. The *Monthly Catalog* is far from the first tool the law librarian reaches for. In the past two years, GPO has heard from its overtaxed public in strength. The catalog is inadequate. The inventory control has been abominable. Checks for mail orders are cashed months before the documents are delivered, if they are delivered at all. In Washington, to get through by phone to make an inquiry or place an order is still a frustrating experience, despite GPO's attempts at improvement.

The 1972 annual meeting of SLA saw dissatisfaction with GPO as the subject of meetings of not only the Government Services Information Committee, but other committees as well. A federal documents task force in ALA has studied the problem in depth. A combined group of GPO users representing SLA, ALA, the Information Industry Association and others received a hearing from Senator Brademas of the Joint Committee on Printing in January of 1973. It has continued to be an issue of importance to both ALA and SLA. Letters from both associations were entered into testimony at the February 1973 hearings on the appointment of the new Public Printer. SLA's letter addressed to Senator Howard Cannon, Chairman of the Joint Committee on Printing, included this paragraph:

> The association's Government Information Services Committee reports that complaints have been received from individual members acoss the country regarding GPO delays and errors in handling orders, claims and credits, subscrip-

tion problems, recent material being out of print, quality of indexing in the *Monthly Catalog*, and the availability of depository libraries as well as bookstore services.

There is evidence that the Joint Committee on Printing has heard the voices of the public. The position of Superintendent of Documents has been upgraded to Assistant Public Printer, three shifts of personnel now work at GPO to catch up on the backlog of orders, and more GPO bookstores are opening around the country. It is hoped that these, combined with distribution offices in Philadelphia, Pennsylvania and Pueblo, Colorado, will make the load at the Washington, D.C. headquarters more manageable. The document availability file has been put on microfiche, and with the January 1974 issue the *Monthly Catalog* has a computer-sorted three part index.

The very specific catalog of suggested improvements for GPO which was communicated to the Superintendent of Documents by the ALA task force in May of 1973[21] received an item-by-item response which equalled it in length and reflected the concern of GPO's administration. A new body, the Advisory Council to the Public Printer on Depository Libraries, began functioning in February 1973. This group is made up of fourteen librarians, experienced and closely concerned with federal documents. At their recommendation, a circular letter titled *Public Documents Highlights* has been born, beginning with May 1973. Though intended primarily for depository librarians, it will be as informative for users of the government information services as is *DDC Digest* and the new *NTIS Customer Memo*. Note these hopeful quotations from the "Superintendent's Log" on page one of the first issue: ". . . we're looking for new—if nonconformist—programs leading to better service to libraries and hence to those who use them . . . keeping 'in touch,' something we haven't done as well as we should have in the past, is one way we think we can improve our service to depositories."[22]

In mid-1972, the GPO Library was transferred to the National Archives. The collection of GPO documents (virtually all publications delivered to the Superintendent of Documents for the *Monthly Catalog*) will be available for research, after the project of unpacking and processing is completed, probably in 1975.

Conclusion

August commissions have explored the problem of access to information in the United States. The most distinguished of them all, the National Advisory Commission on Libraries (1968) identified adequate bibliographic access to our research and information resources as one of six objectives for the nation's libraries and recommended the establishment of the National Commission on Libraries and Information Science as a continuing Federal Planning agency.

In a panoramic presentation of the complicated state of things which is today's information world, William S. Budington, Librarian of the John Crerar Library, makes this statement:

> . . . we recognize the highly complex nature of the user/producer communities and, as yet, can find no solution which provides each with the necessary satisfactions for overall success. No little reorientation is required . . . to achieve an affinity between communities which will assure balanced and operational access to information.[23]

It is hard to find the temerity to offer a solution to the difficulties of bibliographic access to Government information. But consider, if you will, the following daydream.

In this flight of fantasy, Congress has given to the Executive Branch the responsibility for production and dissemination of information from Government sources in all media (print, film, on-line retrieval, etc.). An Interdepartmental Task Force has been appointed to devise, with the guidance of NCLIS, a charter for the new National Information Service. Congress has provided that funding will be arranged for in some way that will avoid an annual battle for congressional appropriations—for example, requiring that a fixed percentage of each agency's budget be allotted for the support of the Information Service.

The Task Force has decided that the concept of "centers of excellence" (set forth in *Distinction Is All*[24]) is the best one to use for the abstracting and cataloging of publications, under the umbrella of the National Information Service.

The American Institute of Physics will map out the master

plan for integrating the component announcement vehicles. CIS will be the source of bibliographic control of congressional publications; Commerce Clearing House will handle the Presidential and Judicial Branch material. NASA STIF and AEC DTIE will continue to function for bibliographic control in their own areas as they have done so well, and other parallel announcement services will be in operation for publications generated by the Department of Transportation, the Department of Justice, the National Institutes of Health, etc. The National Referral Center will be the policeman to insure that not the least of the federal offices or contractors is left out of the structure.

Planning for standardization of input and uniformity of access to all these information bases for retrospective search will be guided by the American Society for Information Science's Special Interest Group for Scientific Dissemination of Information (ASIS SIG/SDI). Members of NTIS's administration will form the nucleus of the superstructure for the new information service, where their experience will be of value. The production facility of NTIS will be the source for centralized production and distribution of all the information products and services. Delivery techniques are being studied at the British National Lending Library. Whatever portions of the Government Printing Office can be useful are to be absorbed into the new production facility; the remainder will be consigned to the Smithsonian Institution.

This Communication Act of 19?? provides that SLA, ALA, ASIS and the Federal Library Committee will make periodic evaluations and will send representatives to join with the members of NCLIS to constitute a body to advise and consent to the appointment of the administrator of this utopia—the ultimate information scientist with long-distance vision—who will employ the experts, the equipment, and the services of the information industry, to the best total effect.

Acknowledgments

In the preparation of this article, comments from many persons were invited, so that experience wider than the author's alone could be drawn upon.

Thanks are due to the librarians and documentalists of the Committee on Information Hang-ups, Washington, D.C. who cooperated in an informal survey, and to members of other user groups whose opinions were solicited.

Notes

1 William S. Budington, "Access to Information," *Advances in Librarianship*, Vol. 2 (New York: Seminar Press, 1971), pp. 7–8.

2 Bernard Fry, *A Research Design for a Comprehensive Study of the Use, Bibliographic Control and Distribution of Government Publications*, Final Report on Project 49-353-12 [Eric Document ED 050-796], (Bloomington: University of Indiana Research Center of Library and Information Science, 1970), p. 43.

3 ALA Government Documents Round Table Federal Documents Task Force, "Suggestions to GPO," DttP 1, no. 3, (May 1973): p. 21–27.

4 Walter Kee, Chief Librarian of the Atomic Energy Commission, in a speech to SLA, as quoted in Ruth S. Smith, "The User Group Technique in Action," *Special Libraries*, January 1973, pp. 34–46.

5 INIS Thesaurus 3d rev. [IAEA-INIS-13] (Vienna: International Atomic Energy Agency, 1973).

6 Saul Herner and Matthew J. Vellucci, eds., *Selected Federal Computer-Based Information Systems*, (Washington, D.C.: Information Resource Press, 1972), p. 192.

7 Ibid., p. 65.

8 Ibid., p. 48.

9 NTIS Customer Memo, Fall 1973 (Springfield, Va., National Technical Information Service, 1973), p. 27.

10 Committee of DDC Users in the Greater Washington, D.C. Area, [Renamed the Committee on Information Hang-Ups], *Information Hang-Ups. Problems Encountered by Users of the Technical Information Services Offered by DDC and CFSTI, with Recommendations for the Future*, [ERIC Document Ed 044-156] (Washington, D.C.: Committee of DDC Users, 1969), p. 5.

11 DDC Instruction 5100.38, March 29, 1965. [Contact author for access to this publication.]

12 Ruth S. Smith, "The User Group in Action," *Special Libraries*, January 1973, pp. 34–46.

13 Committee of DDC Users, *Information Hang-Ups*, 1969 [ERIC Document ED 044-156.]

14 Los Angeles Regional Technical Information Users Council (LARTIUC) *User Problems Associated with the Services of Federal and Quasi-Federal Technical Information Producing Agencies*, (Los Angeles: LARTIUC, 1971) [Available from Mrs. Joe Ann Clifton, Litton Industries, 5500 Canoga Avenue, Woodland Hills, Calif. 91364.]

15 Committee on Information Hang-Ups, Bibliographic Tools Subcommittee, *Bibliographic Tools* (Washington, D.C.: Unpublished, 1970).

16 Committee on Information Hang-Ups, Document Procurement Subcommittee, *Distinction Is All; NTIS from a Technical Librarian's Point-of-View*, [ERIC Document Ed 058 913] (Washington, D.C.: CIH, November 1971).

17 Ibid.

18 Letter from J. H. Richter, Technical Services Department, University of Michigan to Ruth S. Smith, Head Librarian, Institute for Defense Analyses and Chairman, Government Information Services Committee, SLA, October 2, 1973.

19 Jai Liong Yun, "Readex Microprint and the GPO," *RQ*, Spring 1973, pp. 279–282.

20 Letter from Wellington H. Lewis, Assistant Public Printer (Superintendent of Documents) to J. H. Richter, Technical Services Department, University of Michigan Library, November 8, 1973.

21 ALA Government Documents Round Table, Federal Documents Task Force, "Suggestions to GPO," DttP, May 1973, p. 21.

22 Ibid., September 1973, p. 6.

23 Budington, p. 38.

24 Committee on Information Hang-Ups, *Distinction Is All.*

Although not directly quoted the author would like to acknowledge the following sources:

Letter from Ms. Judy Fair, Librarian, The Urban Institute, Washington, D.C., November 13, 1973.

Interviews:

Miss Calla Ann Creppin, Documents Librarian, Sandia Laboratories, Albuquerque, New Mexico.

Mrs. Joan Lappin, Librarian, Naval Ship Research and Development Laboratories, Carderock, Maryland.

Miss Regina A. Nellor, Research Librarian, Institute for Defense Analyses, Arlington, Va.

Conclusions

I hoped in my introduction that this issue of the *Drexel Library Quarterly* would provide useful information on the workings of the several agencies we have confined ourselves to. I think the authors have done well.

I said, too, this issue would explore to some extent the need for clarification in the indexing/announcing process of government information. Several observations seem clear to me.

There is no overall provision in law or regulation for the accessioning of government publications. Those printed (in the broad sense of the word printed) by agencies are to be sent to the Government Printing Office. Archival materials, after a period of time, are sent to the National Archives. But there is no direct provision made for publications produced by government agencies as a part of their research programs.

Where such accessioning responsibility *is* given to the Government Printing Office, no strong administrative directive exists to compel compliance by the producing agencies. The procedures involving the National Archives are clearer but there is no firm distinction between *record* and *publication*. The National Archives, in accepting the collection of the Library of the Government Printing Office, a collection of *published* materials, has taken a broad view of its charge.

The programs authorized for the Department of Commerce, as operated by its National Technical Information Service, are vague. No more than the Government Printing Office, can NTIS compel publications to be sent to it. The uncertain mission of NTIS is reflected in the uncertain coverage of its indexes. We are left, through no fault of the National Technical Information

Service, with little coverage in some subject areas, such as the social sciences.

The uncertainty in definition of these programs causes considerable confusion. The depository system operated by the Government Printing Office is limited by its acquisitions. As a result other separate or overlapping depository systems arise: the somewhat formal ones used by the Atomic Energy Commission and the National Aeronautics and Space Administration, the informal ones used by the Arms Control and Disarmament Agency, the Manpower Administration, the Office of Education before the establishment of ERIC, and so on. The need for ERIC arose indeed out of a lack of an efficient distributing and announcing system for a rapidly growing body of material, outside the subject interests of NTIS and doubtfully within the scope of the Government Printing Office. The National Technical Information Service once operated its own depository system. The uncertainty of funding these programs obviously has been an important factor in their demise or alteration.

The confusion in function, of course, leads to haphazard and inefficient bibliographic control for purposes of identifying and getting access to materials. There is no need to repeat the instances shown in the preceding articles of overlapping coverage, no coverage at all, of the availability of the same title indicated in separate sources according to its format and source.

None of these problems we have are much the faults of the agencies discussed in this issue and no adverse criticism is intended of them. What is at fault, it seems to me, is the lack of overall planning for an efficient control system for government publications, with a governing body empowered to give policy and direction to the whole. This issue has not discussed the National Agricultural Library, the National Library of Medicine, nor the Library of Congress but we should note the effectiveness of their cooperative planning efforts achieved through the U.S. National Libraries Task Force on Cooperative Activities (a task force of the Federal Library Committee).

What overall authority there now is is placed, directly so far as the Government Printing Office is concerned, and indirectly (in

effect) in the Joint Committee on Printing of the Congress. The Joint Committee on Printing rightly has its eye on costs of printing but its overview of the whole of the government publications program, in all of its ramifications, is limited. The Joint Committee does, it seems to me, ask too much of the Government Printing Office to be printer, sales agent, operator of the Federal depository system, and part-time bibliographer.

The American Library Association Council has before it, as has been mentioned, a proposal for a national depository of government publications; late in 1973, the National Commission on Libraries and Information Science submitted its draft report of a national plan for library service, with its yet vague system of computer networks using government facilities, (this is not specifically concerned with government publications); in 1972 the Congress rather exhaustively investigated the ramifications of *U.S. Government Information Policies and Practices*,[1] albeit from its own viewpoint of information availability, the ramifications of security classification of documents, and the like. So, we are moving haltingly to an overview of government information availability and control. It's rather high time we did but it's fervently to be hoped that the look will be made by a joint congressional-executive commission of stature and vision and that the look will be a long, hard one. What better place to begin than with the information sources provided by the government itself, and who better to ask to participate in decisions but those who use the information?

We do need an efficient system to identify a government publication and to tell us how to get it. There is no easy solution and probably not just one but we ought to make a start at finding a better system than we now have. I dream Mrs. Fass's dream. That is, when I'm not having nightmares.

C. C.—Editor

Notes

1 U.S. Congress. House. Committee on Government Operations, *U.S. Government Information Policies and Practices. Hearings*, 92d Congress. Parts 1–9. Washington. Government Printing Office, 1971–72.

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